Writing SSRS Reports in Dynamics 365 for Fun and Profit

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Intro



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AMSTERDAM | 27 - 29 MARCH

Goals of Session

- What is SQL Server Reporting Services?
- Comparison to other Reporting Options
- How to configure a Report Authoring Environment
- How to build a Dynamics 365







Comparison to Power BI

- SSRS
- No extra licensing
- Pixel level layout, ideal for documents
- Can setup some automation of reports
- Realtime data
- PowerBl
- Ideal for dashboards and analytics
- Richer controls
- Microsoft focused





Comparison to Word Templates

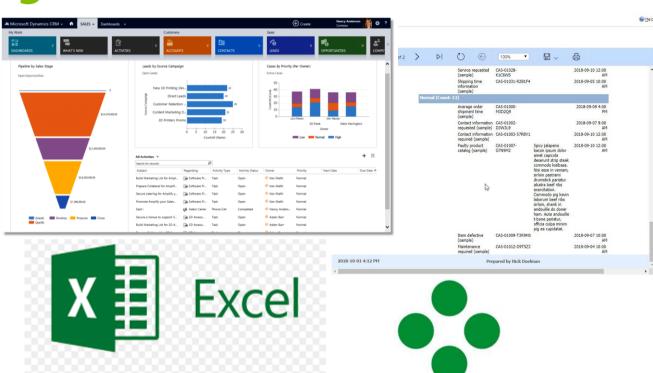
- SSRS
- Pull deep data relationships
- **Export to PDF**
- Word Templates
- Easy layout and familiarity
- Built-in Automation in Dynamics 365





Other Reporting Options

- Dynamics 365 Report Wizard
- Dynamics 365 Dashboards
- Excel
- Other 3rd party





crystal reports

DEMO

Setup Report Authoring Build a Dynamics 365 Report



Setup SSRS Report Authoring Environment

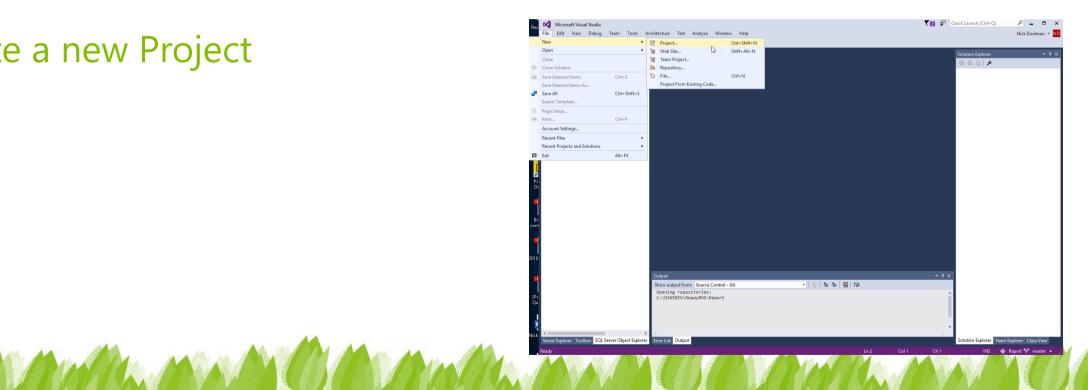
- Install Visual Studio Data Tools
- Install Dynamics 365 Report Authoring Extensions
- Step by Step https://bit.ly/2NhVaLn





Building a Dynamics 365 Report in SSRS – Setup Project

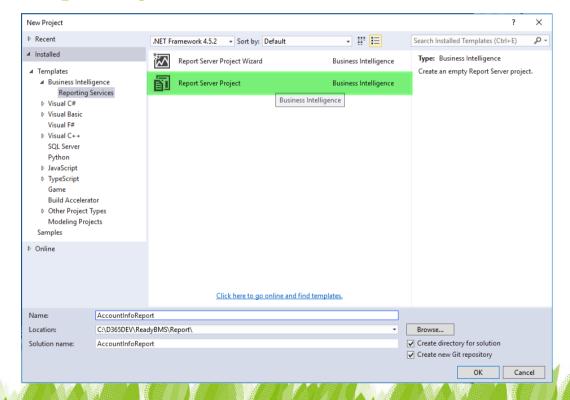
Create a new Project





Building a Dynamics 365 Report in SSRS – Setup Project

- Choose Report Server Project
- Give Report name and location
- Consider using Source Control





Building a Dynamics 365 Report in SSRS – Add Report

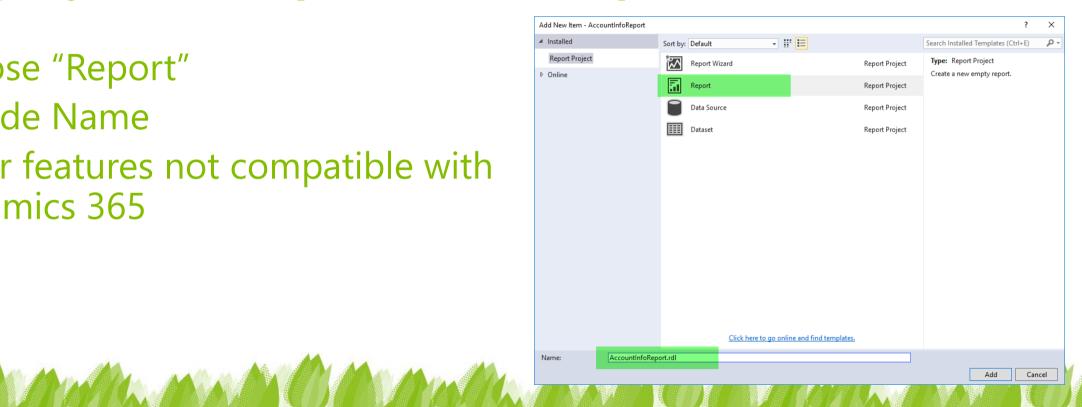
- Right click on Reports folder
- Add "New Item"
- "Existing Item" to upload existing RDL (later)





Building a Dynamics 365 Report in SSRS – Add Report

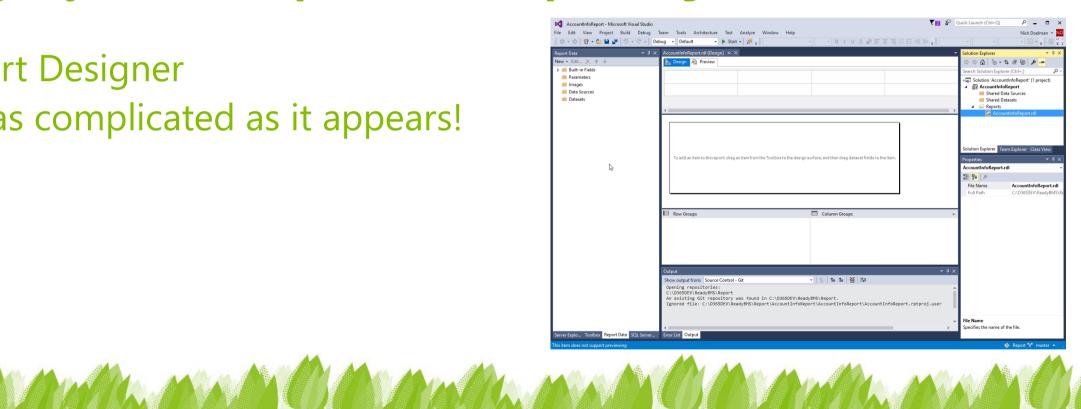
- Choose "Report"
- **Provide Name**
- Other features not compatible with Dynamics 365





Building a Dynamics 365 Report in SSRS – Report Designer

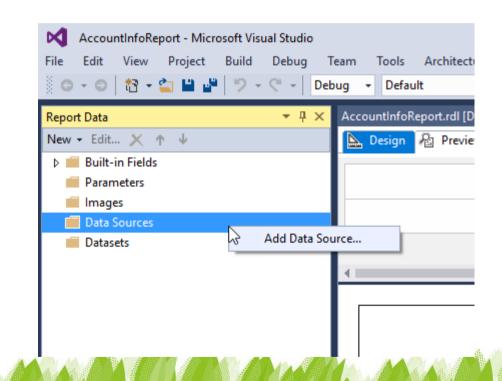
- Report Designer
- Not as complicated as it appears!





Building a Dynamics 365 Report in SSRS – Create Data Source

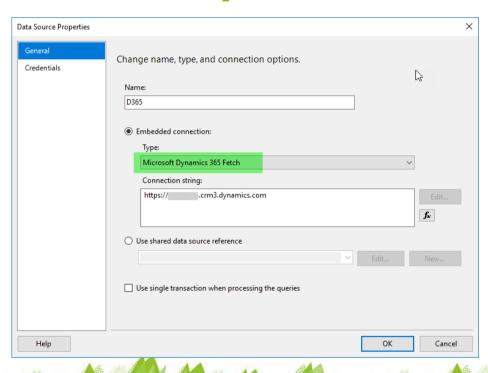
- Connect to Dynamics 365
- Can connect to Production as reports are read-only
- Add Data Source (right click on Data Sources)
- Shared Data Sources not compatible with Dynamics 365





Building a Dynamics 365 Report in SSRS – Data Source Setup

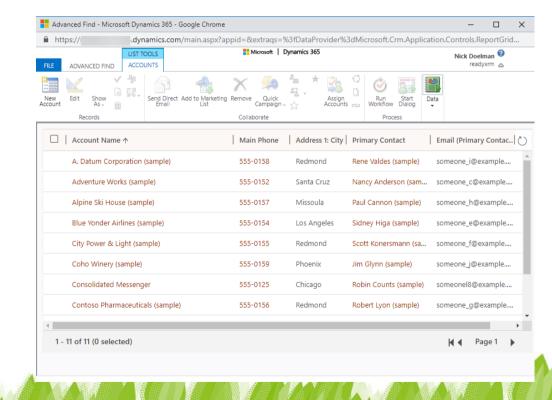
- Give Data source a Name
- Make sure you see Microsoft Dynamics 365 Fetch
- Connection string is Dynamics 365 URL
- SQL Server is an option for onpremise, but ideally always use





Building a Dynamics 365 Report in SSRS – Create Datasets

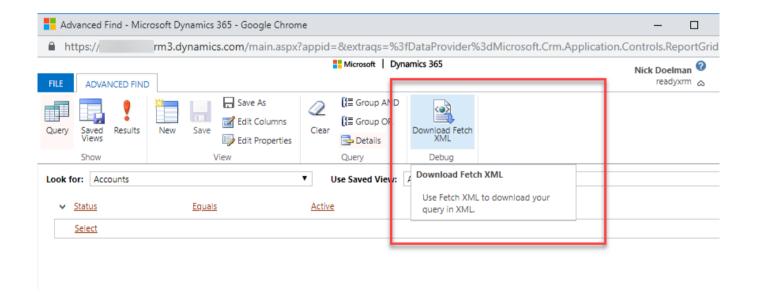
- In Dynamics 365 Advanced Find
- Build for Data you want to appear in report. E.g. Active Accounts





Building a Dynamics 365 Report in SSRS – Create Datasets

Download FetchXML





Building a Dynamics 365 Report in SSRS – Create Datasets

FetchXML

```
□kfetch version="1.0" output-format="xml-platform" mapping="logical" distinct="false">
        <entity name="account">
3
          <attribute name="name" />
4
          <attribute name="address1 city" />
          <attribute name="telephone1" />
5
          <attribute name="accountid" />
          <attribute name="createdon" />
          <attribute name="websiteurl" />
          <order attribute="name" descending="false" />
10
         <filter type="and">
           <condition attribute="statecode" operator="eq" value="0" />
11
          </filter>
13
        </entity>
      </fetch>
```



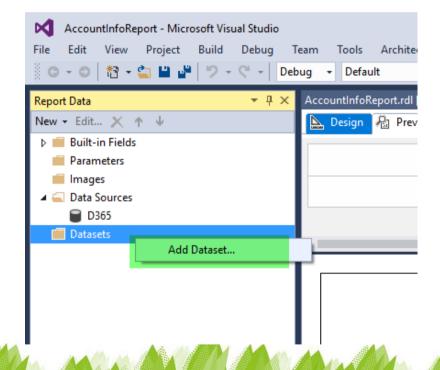
Building a Dynamics 365 Report in SSRS – Create Datasets

- Add prefiltering to allow report to be run in context of Dynamics 365 record
- Adjust other FetchXML attributes



Building a Dynamics 365 Report in SSRS – Create Datasets

 In Report Designer, right click on Datasets and choose "Add Dataset"

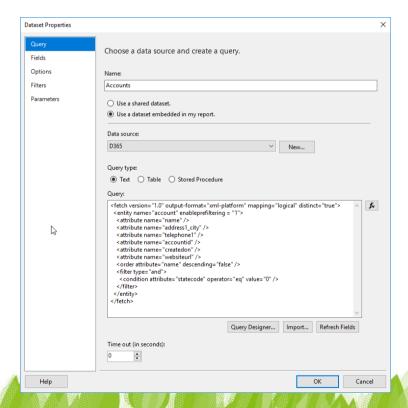




Building a Dynamics 365 Report in SSRS – Create Datasets

Use the Dataset created earlier

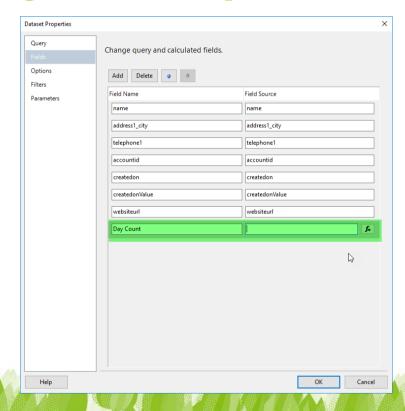
Paste in FetchXML





Building a Dynamics 365 Report in SSRS – Config Dataset Properties

- Modify Dataset Properties, filtering, parameters, etc.
- Example: Add Calculated Field

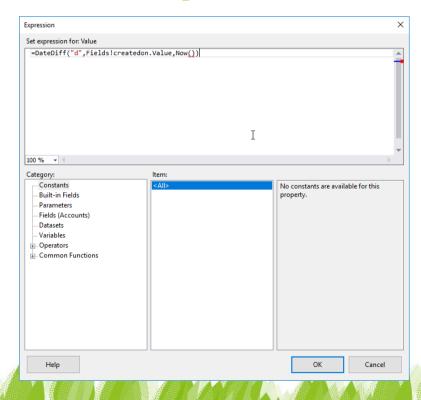




WARAMAN MARAMAN

Building a Dynamics 365 Report in SSRS – Config Dataset Properties

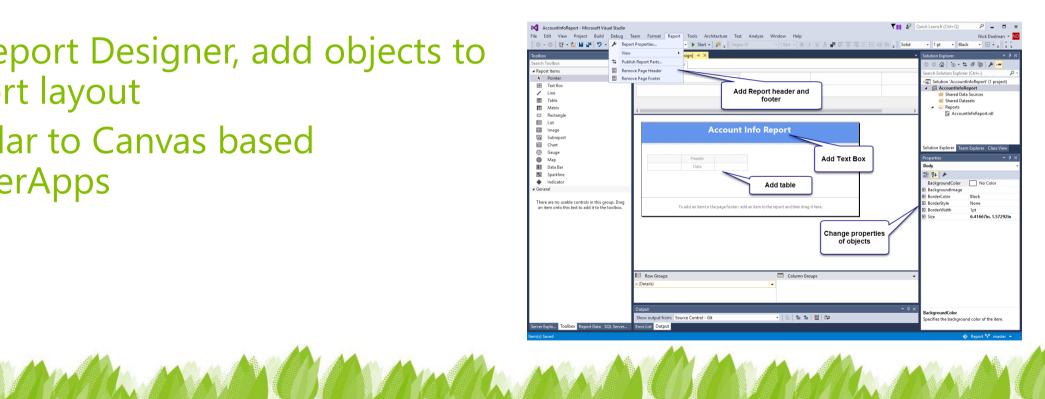
 Example: Enter in formula to count days since account was created





Building a Dynamics 365 Report in SSRS – Report Design

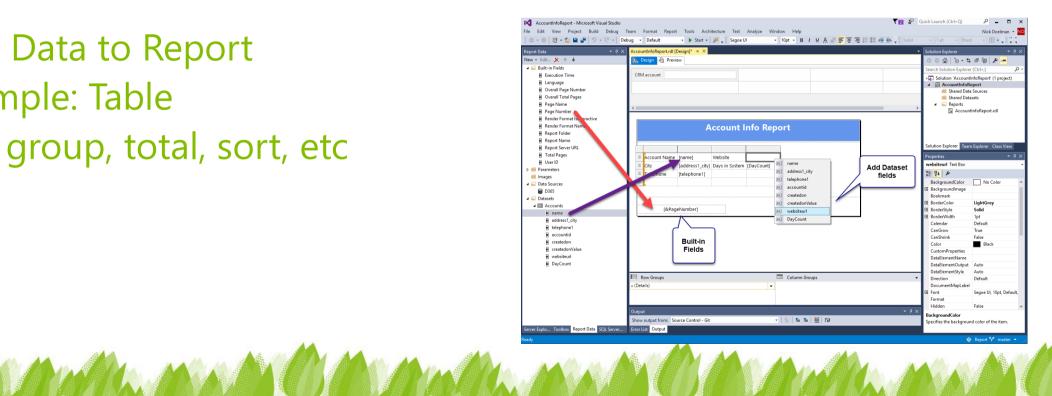
- In Report Designer, add objects to report layout
- Similar to Canvas based **PowerApps**





Building a Dynamics 365 Report in SSRS – Report Design

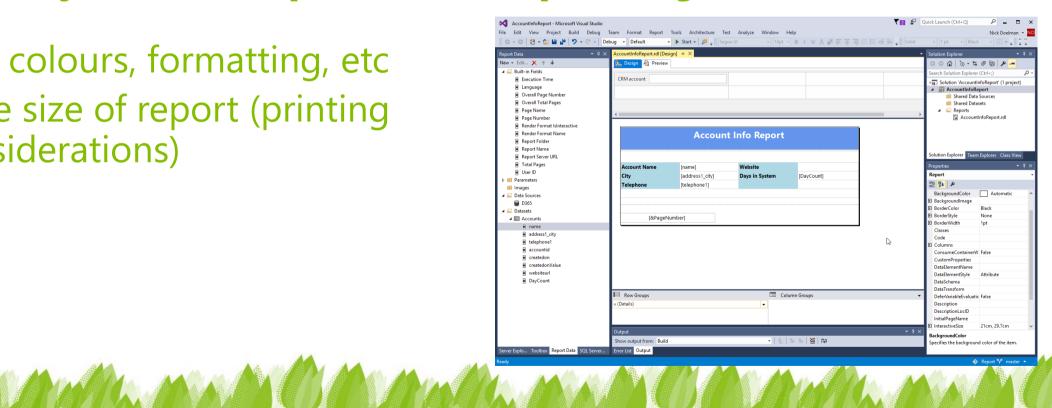
- Add Data to Report
- Example: Table
- Can group, total, sort, etc.





Building a Dynamics 365 Report in SSRS – Report Design

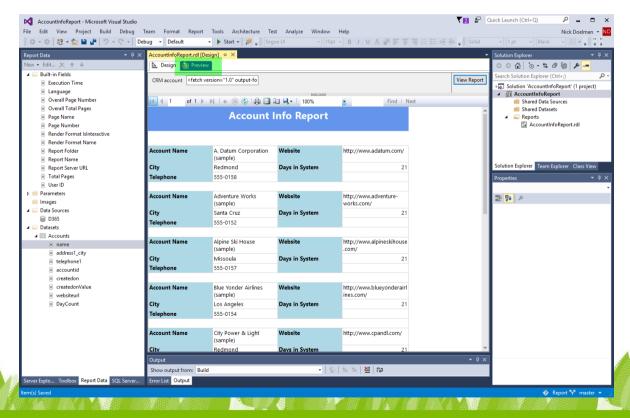
- Add colours, formatting, etc
- Note size of report (printing considerations)





Building a Dynamics 365 Report in SSRS – Report Design

Choose Preview to see report





Building a Dynamics 365 Report in SSRS – Extras

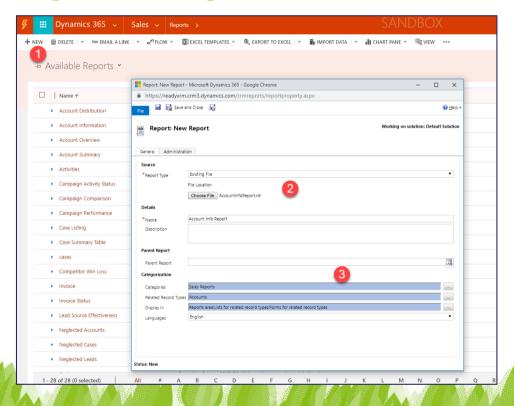
- City Background Color
- Navigate to URL
- Format Date

 City Background Color 	Account Info Report			
	Account Name	A. Datum Corporation (sample)	Website	http://www.adatum.com
 Navigate to URL 	City Telephone	Redmond 555-0158	Days in System Created On	9/10/2018
	Telephone	333-0138	Created On	9/10/2018
 Format Date 				
• Format Date	Account Name	Adventure Works (sample)	Website	http://www.adventure- works.com/
	City	Santa Cruz	Days in System	
	Telephone	555-0152	Created On	9/10/2018
	Account Name	Alpine Ski House (sample)	Website	http://www.alpineskihou .com/
	City	Missoula	Days in System	
	Telephone	555-0157	Created On	9/10/2018
	Account Name	Blue Yonder Airlines (sample)	Website	http://www.blueyondera
44	City	Los Angeles	Days in System	
MAN AA MA AA	Telephone	555-0154	Created On	9/10/2018
	M	400 W		
			<i>P</i>	



Building a Dynamics 365 Report in SSRS – Upload to Dynamics 365

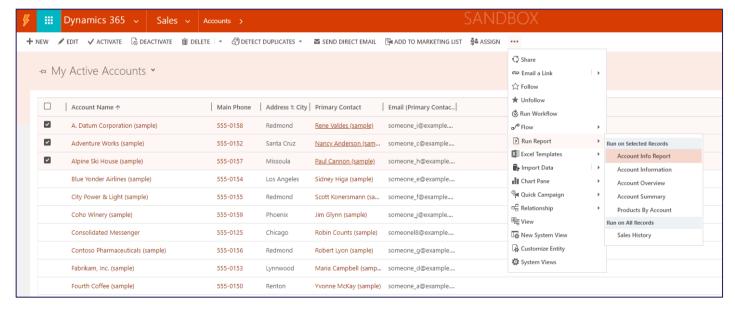
- Navigate to Reports
- New Report
- Choose RDL file
- Categories, Record Types, Display in





Building a Dynamics 365 Report in SSRS – Run Report

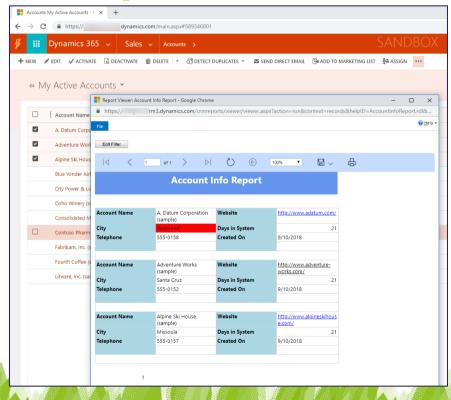
- Navigate to Records
- Select records
- Run report (in context of records chosen)





Building a Dynamics 365 Report in SSRS – Run Report

Report will appear in context of records chosen

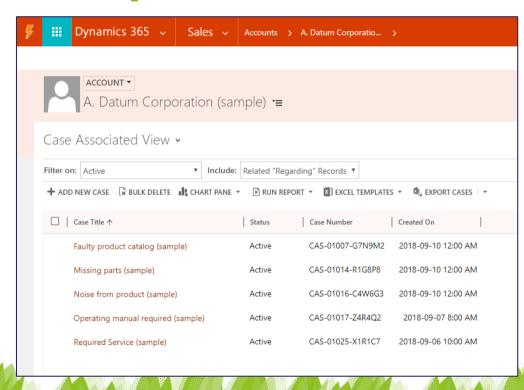




Building a Dynamics 365 Report in SSRS – Sub Report

Requirement

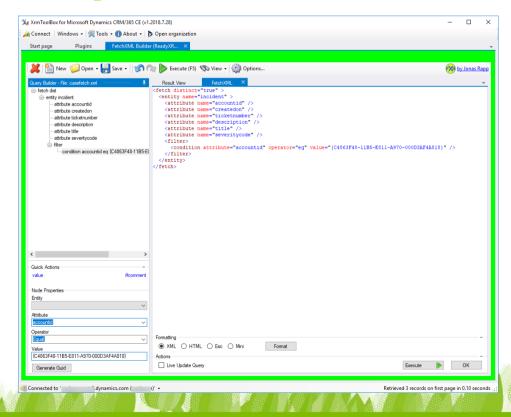
- Show list of cases per Account
- Related records
- Ideally all in one report, but sub-reports provide options for more complex reports





Building a Dynamics 365 Report in SSRS – Sub Report – Advanced FetchXML

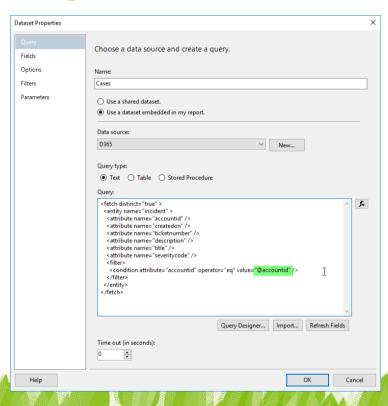
- Use FetchXML Builder to create advanced FetchXML (better than Advanced Find)
- Note filtering on GUID
- Will replace with parameter





Building a Dynamics 365 Report in SSRS – Sub Report – Advanced FetchXML

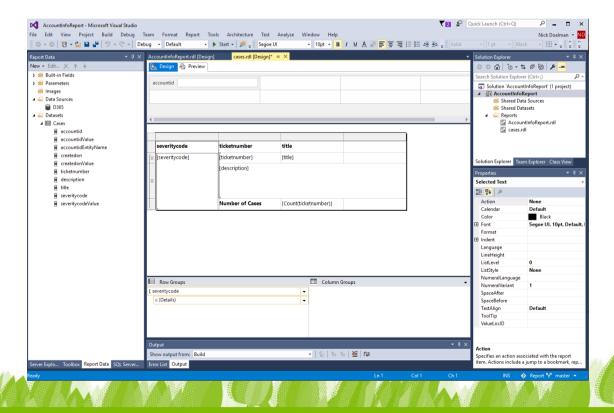
- Copy FetchXML
- Replace GUID with @accountid
- This will create parameter





Building a Dynamics 365 Report in SSRS – Sub Report

- Add Fields
- Organize Layout

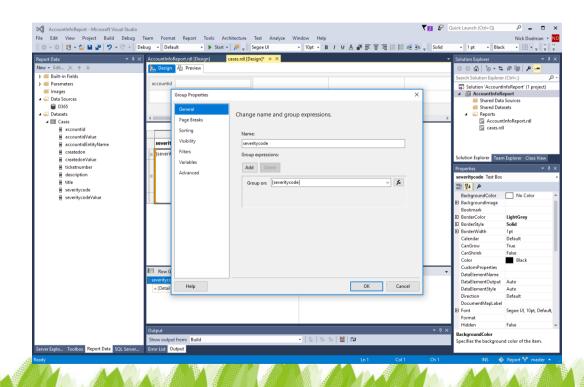




Building a Dynamics 365 Report in SSRS – Sub Report – Grouping Data

- Add Group
- Organize and Summarize data

 Total of Money, Count Records, etc

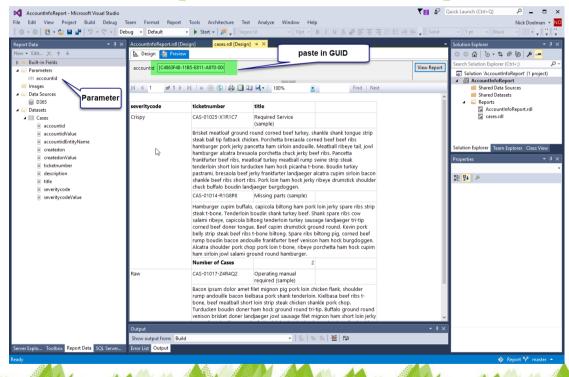




Building a Dynamics 365 Report in SSRS – Sub Report – Run Sub Report

Will be prompted for GUID

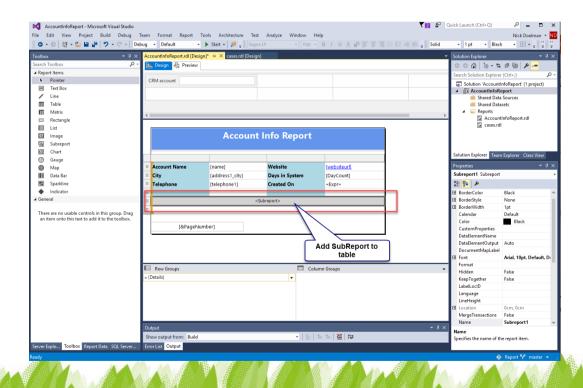
 Parameter created from FetchXML





Building a Dynamics 365 Report in SSRS – Sub Report – Add Sub Report

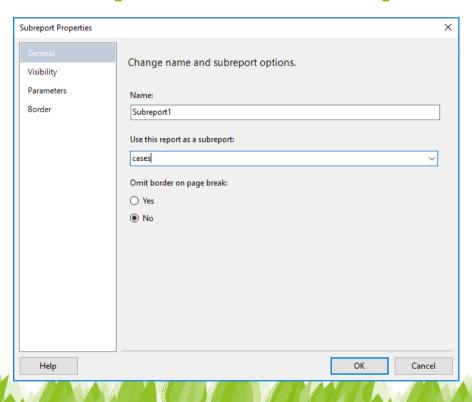
Add SubReport Object





Building a Dynamics 365 Report in SSRS – Sub Report – Add Sub Report

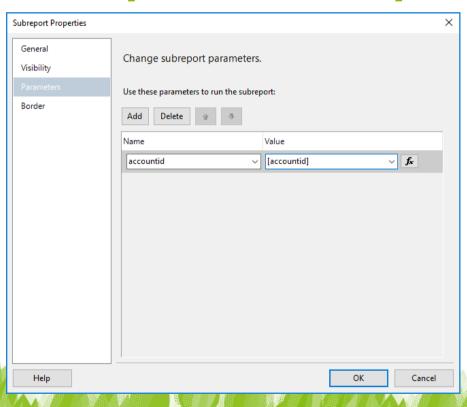
Choose subreport





Building a Dynamics 365 Report in SSRS – Sub Report – Add Sub Report

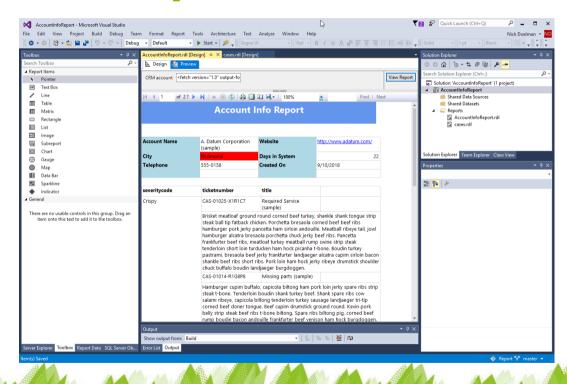
Link parameter from Dataset





Building a Dynamics 365 Report in SSRS – Sub Report

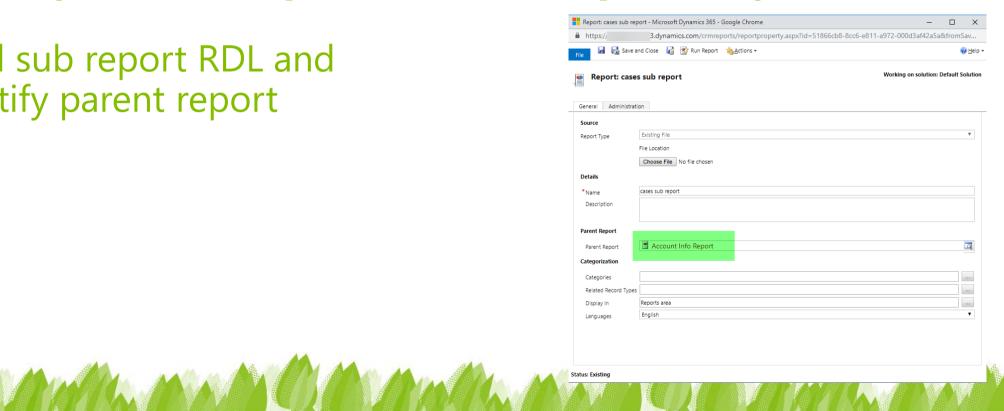
Report with Sub Report





Building a Dynamics 365 Report in SSRS – Sub Report – in Dynamics 365 CE

 Load sub report RDL and identify parent report





Building a Dynamics 365 Report in SSRS – Other Homework

- Add Report to Solutions
- Export Report RDL
- Examine Object Properties



Building a Dynamics 365 Report in SSRS – Helpful Links

- Setup SSRS Report Authoring
- https://readyxrmblog.wordpress.com/2018/07/24/set-up-your-workstation-to-create-sql-server-reporting-services-reports-for-dynamics-365-revisited/
- Send Report via Email using MS-Flow
- https://github.com/bguidinger/Xrm.ReportScheduler/releases/tag/v1.4.0.0
- Microsoft Docs
- https://docs.microsoft.com/en-us/dynamics365/customer-engagement/analytics/reporting-analytics-with-dynamics-365



• Questions?









SUSER GROUP SUROPE

TITLE HEADLINE

Secondary Text





Simple supporting Text Goes Here

TITLE/HEADLINE OPTION

Subheadline text



Speakers Example



Speaker Name

<title> <company> <Volunteer positions>



Speaker Name

<title> <company> <Volunteer positions>



Speaker Name

<title> <company> <Volunteer positions>



Section title



Section title



SECTION TITLE

Main topic 1: size 40pt

Size 20pt for the subtopics

Size 20pt for the subtopics



Text layout (no bullets)

Main topic 1: size 36pt

Size 20pt for the subtopics

Size 20pt for the subtopics

Main topic 2: size 36pt

Size 20pt for the subtopics

Size 20pt for the subtopics



Bullet Points Layout with Subtitle

Subheadline option goes here.

- Example of a bulleted slide with a subhead
 - Set the slide title to "Sentence case"
 - Set subheads to "Sentence case"



Bullet Points Layout with Subtitle

Subheadline option goes here.

- Example of a bulleted slide with a subhead
 - Set the slide title to "Sentence case"
 - Set subheads to "Sentence case"
- Hyperlink style
 - www.website.com



Example headline with photo.

Example text point.

Example Photo

FOR BEST RESULTS CROP THE PHOTO TO A SQUARE AND INSERT AS BACKGROUND INTO CIRCLE SHAPE.



Software code slide

This slide layout uses Consolas, a monotype font which is ideal for showing software code.



Lots of data? Minimalize and plan

Gray is used to de-emphasize data that is less important. Use cool gray 3 or cool gray 7. See slide 7 for color formulas.

All elements have the same interior margins as text blocks.

When a chart or graphic, has more elements than can easily be aligned to the grid, align the outer edges of the group, top, bottom, left and right edges to the grid.

It is preferable to keep the group aligned to the left border.

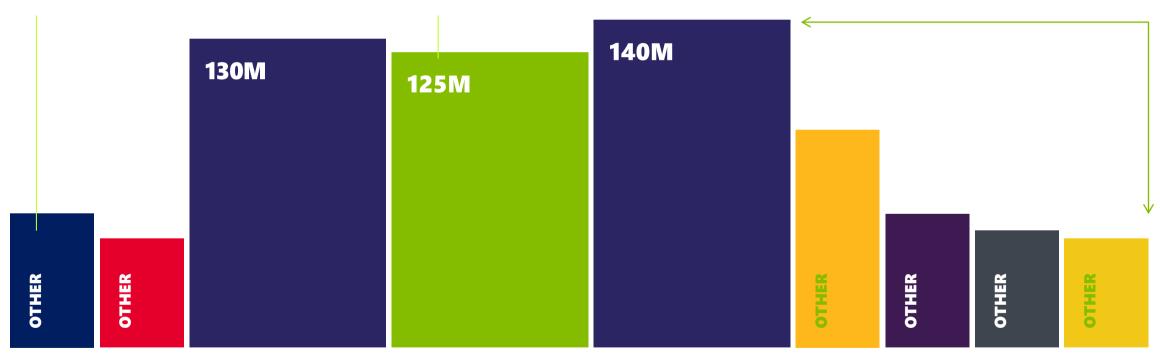
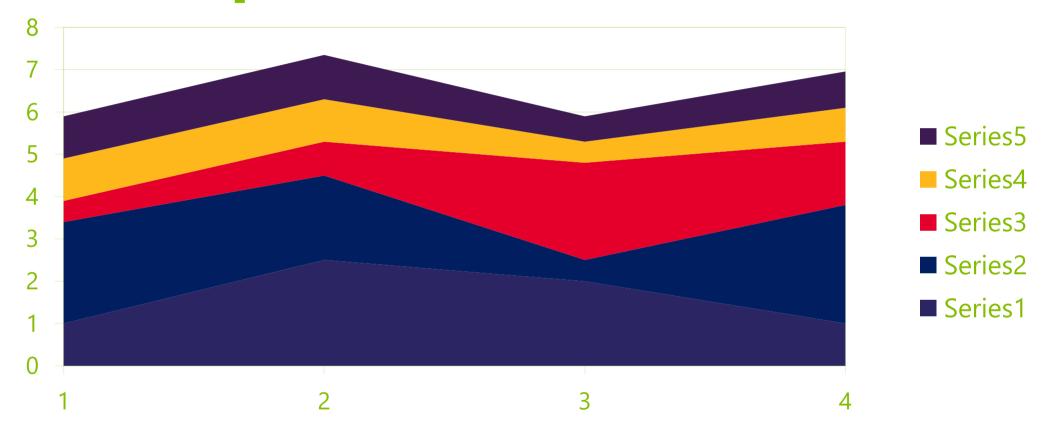




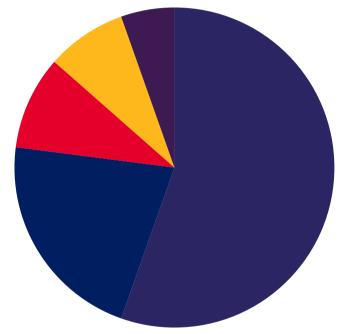
Chart example





Pie chart 2

Sample Chart title can be added here



- 1st Qtr
- 2nd Qtr
- 3rd Qtr
- 4th Qtr
- 5th Qtr



SUSER GROUP SUROPE