

Dynamic Dashboards: Making the most out of Dashboards with XrmToolBox, and embedded PowerBI and SSRS





Dana Service

Microsoft Certified Professional

Solution Architect

Stoneridge Software

dana.service@stoneridgesoftware.com

linkedin.com/in/dana-service

Microsoft® Certified: Dynamics CRM

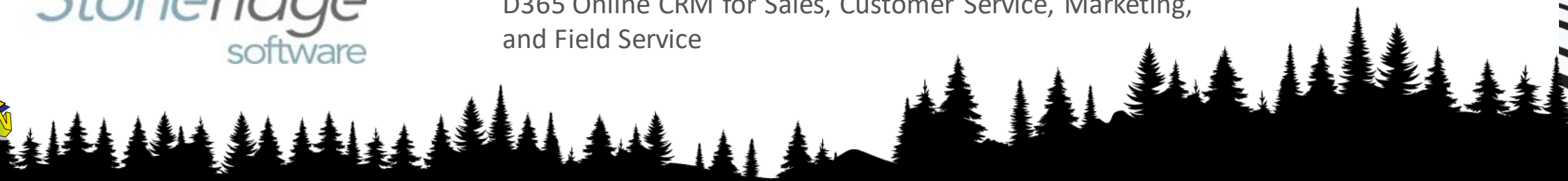
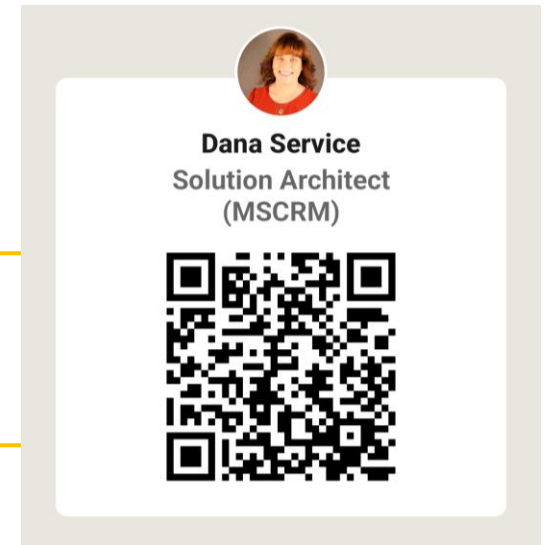
User Group Leader – Arizona

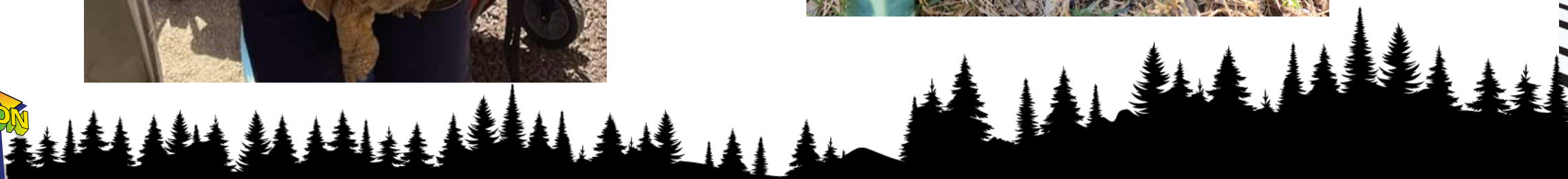
16 years in Dynamics CRM:

D365 Power Platform

2011, 2016 CRM On Prem

D365 Online CRM for Sales, Customer Service, Marketing,
and Field Service





Agenda

- Comparing Personal vs System Views, Charts & Dashboards
- Creating Personal Views/Graphs/Power BI visualizations based on Views
- Creating Admin Views, Charts and Dashboards in PowerApps
- Embedded PowerBI in dashboards
- Upgrading charts with XRM ToolBox
- The case for SSRS



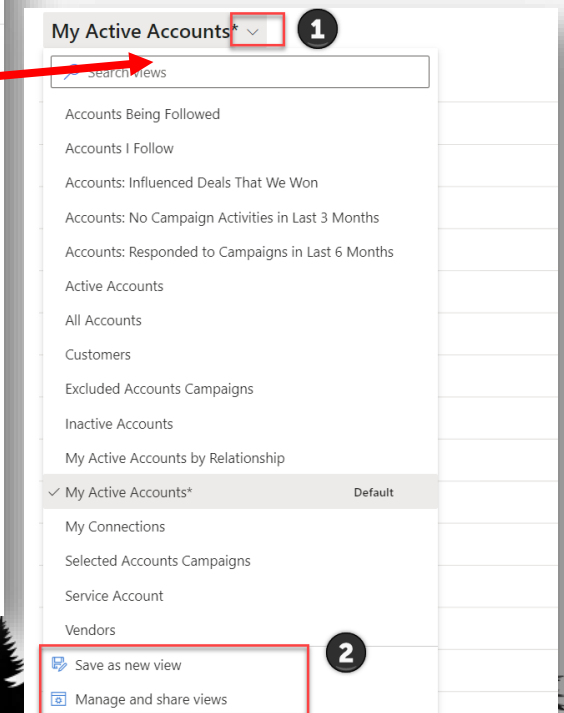
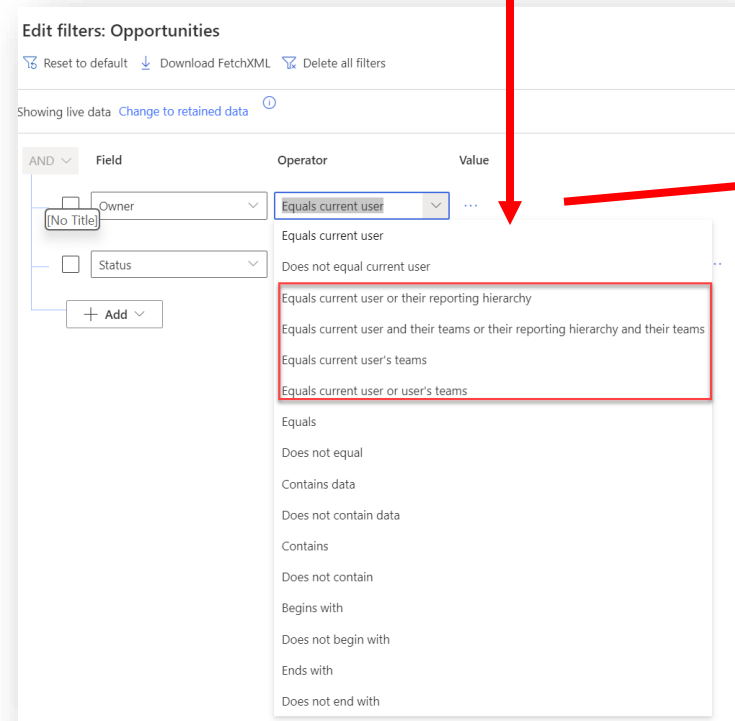
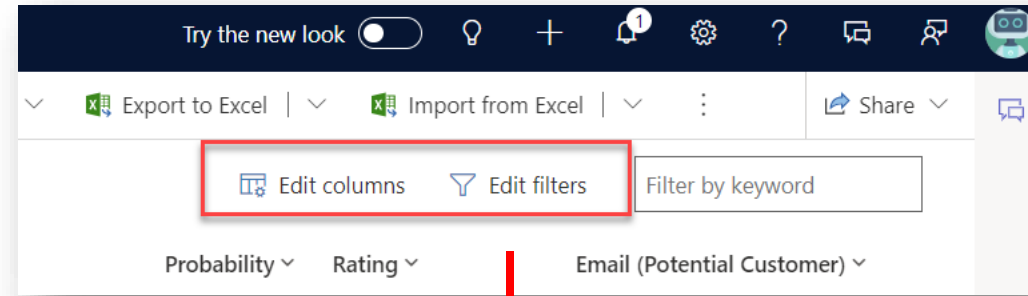
Out of the Box Views, Charts and Dashboards

Personal Views, Charts and Dashboards		System Views, Charts and Dashboard	
Value Add	Detractors	Value Add	Detractors
Quick and easy – don't have to wait for someone else	People leave the company – requires tool to access and update *set up ownership to a Master or admin account	Teams working with different data across the Org/dataverse - customize to roles/access by roles and apps	Permissions can lock some dashboard views/graphs
Excellent repetitive search technique	Limitations based on 1: N and N:N relationships and knowledge transfer/training *Build multiple views to meet the "Or" statement	Sharing with large groups is automatic - Allows low to mid end users to be up and running with minimal time *training on personal creation can come later	Requires admin to create and manage *Share with the admin so they can create an exact match
Sharable/customizable	Variations of data/reporting based on skill – access is manual and time-consuming – Dashboard is a sum of parts *Manually add users to all parts	Ready for all users to access with the same information and availability	Not everyone will be happy



Personal Views

- Creating Personal Views
 - Give Users Freedom to adapt the system to their needs quickly and with no coding
 - Require sharing- (create a team)
- Editing Filters
 - Limitation - having multiple tables in "Or" statements
- Editing Columns
 - Limitation – 1:N and N:N Relationships



- Home
- Recent
- Pinned
- My Work
 - Sales accelerator
 - Activities
 - Dashboards
- Customers
 - Accounts
 - Accounts with Ima...
 - Overview
 - Page1
 - Contacts
- Sales
 - Leads
 - Opportunities
 - Competitors
- Collateral
 - Quotes
 - Orders
 - Invoices
 - Products

Show As Show Chart New Delete Refresh Visualize this view Email a Link Flow Run Report Excel Templates Export to Excel Import from Excel Share

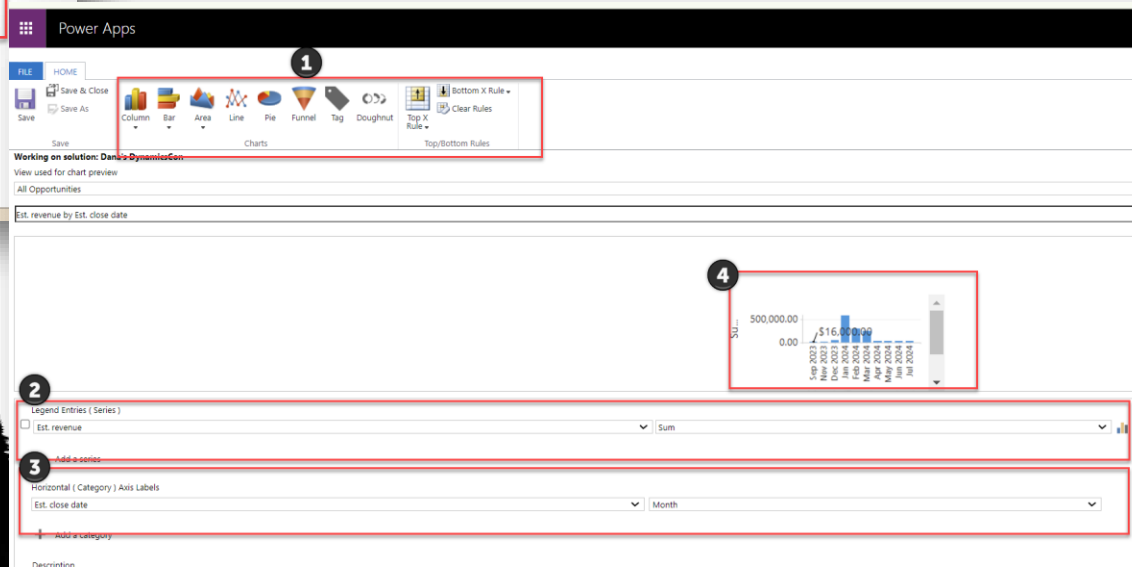
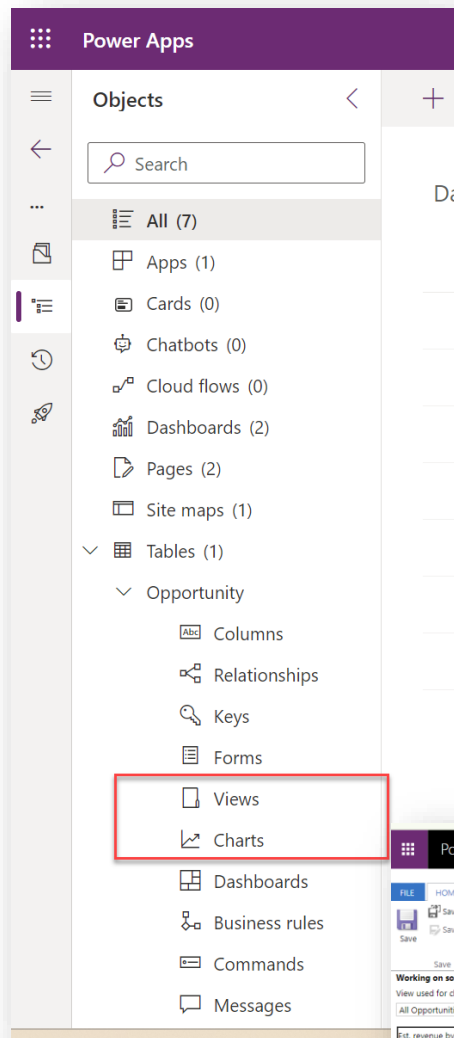
My Open Opportunities

Edit columns Edit filters Filter by keyword

Topic	Potential Custo...	Est. close date	Est. revenue	Contact	Account	Probability	Rating	Email (Potential Custom...
5 Café BG-1 Pro Grinders for Northwind Traders	Northwind Traders	2/12/2024	\$24,995.00	Heriberto Nathan	Northwind Traders	93	Cold	
5 Café A-100 Automatic	Trey Research	2/18/2024	\$77,500.00	Alex Baker	Trey Research	85	Hot	
6 orders of Product SKU JJ202 (sample)	Fourth Coffee (sa...	2/18/2024	\$10,000.00	Maria Campbell (s...	Fourth Coffee (sa...	90	Hot	
3 Café Grande Espresso Machines for A. Datum	A. Datum Corpora...	2/21/2024	\$44,700.00	Kevin Martin	A. Datum Corpora...	90	Warm	
2 Semiautomatic Espresso Machines for A. Datum	A. Datum Corpora...	2/22/2024	\$39,800.00	Kevin Martin	A. Datum Corpora...	78	Warm	
1 Café BG-1 Grinder for Alpine Ski House	Alpine Ski House	3/2/2024	\$4,999.00	Dwayne Elijah	Alpine Ski House	80	Cold	
18 Airpot Coffee Makers for Northwind Traders	Northwind Traders	3/4/2024	\$30,582.00	Miguel Garcia	Northwind Traders	93	Cold	
2 Café Duo Espresso Machines for Fabrikam	Fabrikam, Inc.	3/5/2024	\$25,800.00	Zoltán Szabó	Fabrikam, Inc.	90	Warm	
1 Café Grande Espresso Machine for Alpine Ski House	Alpine Ski House	3/6/2024	\$14,900.00	Cacilia Viera	Alpine Ski House	70	Cold	
50 Café A-100 Automatic	Trey Research	3/7/2024	\$95,000.00	Avery Howard	Trey Research	81	Warm	
10 Airpot XL Coffee Makers for Alpine Ski House	Alpine Ski House	3/13/2024	\$4,990.00	Cacilia Viera	Alpine Ski House	65	Cold	
9 Café PG-1 Grinders for A. Datum	A. Datum Corpora...	3/13/2024	\$35,991.00	Kevin Martin	A. Datum Corpora...	80	Hot	
2 Café Corto for Northwind Traders	Northwind Traders	3/28/2024	\$33,800.00	Miguel Garcia	Northwind Traders	80	Cold	
Needs to restock their supply of Product SKU AX305; will purchase a...	Blue Yonder Airlin...	4/15/2024	\$25,000.00	Sidney Higa (samp...	Blue Yonder Airlin...		Hot	
Very likely will order 18 Product SKU JJ202 this year (sample)	Alpine Ski House (...)	5/18/2024	\$30,000.00	Paul Cannon (sam...	Alpine Ski House (...)		Hot	
They sell many of the same items that we do - need to follow up (sa...	Contoso Pharmac...	6/21/2024	\$26,000.00	Robert Lyon (samp...	Contoso Pharmac...	95	Hot	
Will be ordering about 110 items of all types (sample)	Coho Winery (sam...	7/19/2024	\$25,000.00	Jim Glynn (sample)	Coho Winery (sam...	80	Hot	

System Views

- Power Apps
 - Benefit of a solution
 - Can be role-based/app-based to limit view
 - Easier to management and access
 - Make sure to publish to the Model Driven App
- Creating Views



- Home
- Create
- Learn
- Apps
- Tables
- Flows
- Solutions**
- More
- Power Platform

+ New solution ← Import solution 📁 Open AppSource 🗨 Publish all customizations 📄 Set preferred solution ⌚ See history ... Search

Solutions



Set your preferred solution
Select where your updates will be saved so your work stays organized.

Current preferred solution
Common Data Services Default Solution

Manage

Unmanaged Managed All

Display name	Name	Created	Version	Publisher	Solution check
Dana's DynamicsCon	DanasDynamicsCon	1 day ago	1.0.0.0	Default Publisher for...	Hasn't been run
Chad's Playground	ChadsPlayground	2 months ago	1.0.0.0	Chad's Publisher	Hasn't been run
Common Data Services Def... Preferred solution	Cr43b14	3 months ago	1.0.0.0	CDS Default Publisher	Hasn't been run
Default Solution	Default	3 months ago	1.0	Default Publisher for...	Not supported for analysis

Spicy View

- Taking your views to another level
 - Provides users with better visibility
 - Ensures important data is not overlooked
 - User Adoption practices

The screenshot displays the 'My Open Opportunities' view in Dynamics 365 Sales Hub. The table lists various opportunities with the following columns: Topic, Potential C..., Est. close date, Est. revenue, Contact, Account, Probability, Rating, and Email (Potential Cus...). The Rating column uses color-coded indicators: 'Cold' (grey) and 'Hot' (red). Two red arrows point to a 'Cold' rating and a 'Hot' rating. A yellow circle highlights the 'Cold' rating for the opportunity 'Fabrikam - planning updates to site'. The table also includes a search bar, 'Edit columns', 'Edit filters', and 'Filter by keyword' options. The bottom of the table shows 'All' and 'Rows: 399'.

Topic	Potential C...	Est. close date	Est. revenue	Contact	Account	Probability	Rating	Email (Potential Cus...
Adatum - update systems	Adatum Cor...	1/19/2024	\$9,388.00		Adatum Cor...	10	Cold	
Fabrikam - Needs new system overhaul	Fabrikam, Inc.	1/25/2024	\$1,211.00		Fabrikam, Inc.	5	Cold	
<u>Fabrikam - planning updates to site</u>	<u>Fabrikam, Inc.</u>	1/26/2024	\$350,000.00		<u>Fabrikam, Inc.</u>	10	Cold	
planned upgrades	Fabrikam, Inc.	2/21/2024	\$4,984.00		Fabrikam, Inc.	15	Cold	
new site	ABC fixtures	2/29/2024	\$48,828.00		ABC fixtures	45	Cold	
new project	ABC fixtures	3/25/2024	\$100,000.00		ABC fixtures	30	Cold	
existing project with updates	ABC fixtures	3/29/2024	\$1,583.99		ABC fixtures	25	Cold	
engaging new team	Wingtip Toys	3/29/2024	\$150.00		Wingtip Toys	25	Cold	
new project planned start May	Fabrikam, Inc.	3/29/2024	\$200,000.00		Fabrikam, Inc.	90	Hot	
planned upgrades	Fabrikam, Inc.	3/31/2024	\$12,594.00		Fabrikam, Inc.	90	Hot	
new site	Wingtip Toys	3/31/2024	\$10,771.08		Wingtip Toys	90	Hot	
new project	Wingtip Toys	4/5/2024	\$33,648.62		Wingtip Toys	90	Hot	

- Home
- Recent
- Pinned
- My Work
- Sales accelerator
- Activities
- Dashboards
- Customers
- Accounts
- Contacts
- Sales
- Leads
- Opportunities
- Competitors
- Collateral
- Quotes
- Orders
- Sales

← Show As Show Chart + New Delete Refresh Visualize this view Email a Link Flow Run Report Share

My Open Opportunities

Edit columns Edit filters

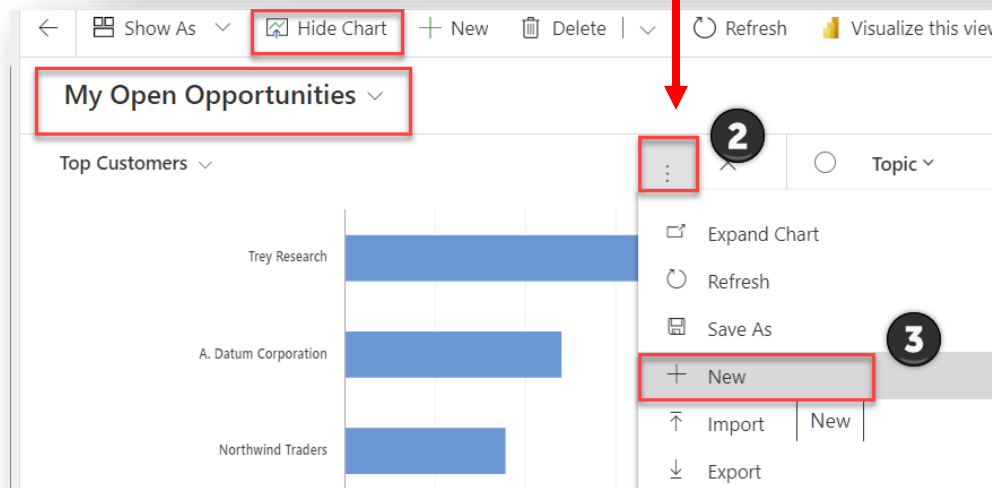
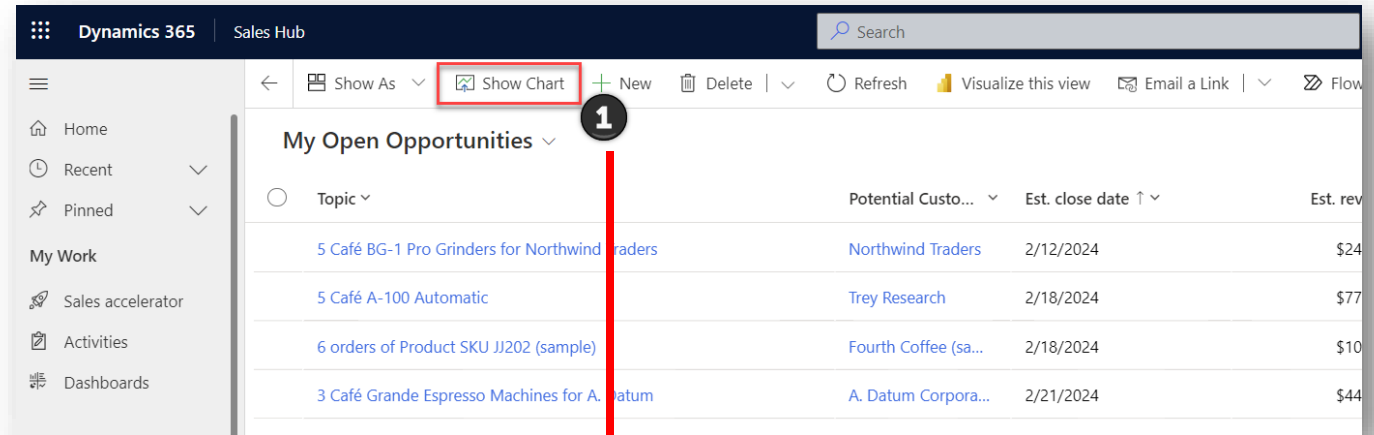
Topic	Potential C...	Est. close date	Est. revenue	Contact	Account	Probability	Rating	Email (Potential Cus...
Adatum - update systems	Adatum Cor...	1/19/2024	\$9,388.00		Adatum Cor...	10	Cold	
Fabrikam - Needs new system overhaul	Fabrikam, Inc.	1/25/2024	\$1,211.00		Fabrikam, Inc.	5	Cold	
Fabrikan - planning updates to site	Fabrikam, Inc.	1/26/2024	\$350,000.00		Fabrikam, Inc.	10	Cold	
planned upgrades	Fabrikam, Inc.	2/21/2024	\$4,984.00		Fabrikam, Inc.	15	Cold	
new site	ABC fixtures	2/29/2024	\$48,828.00		ABC fixtures	45	Cold	
new project	ABC fixtures	3/25/2024	\$100,000.00		ABC fixtures	30	Cold	
existing project with updates	ABC fixtures	3/29/2024	\$1,583.99		ABC fixtures	25	Cold	
engaging new team	Wingtip Toys	3/29/2024	\$150.00		Wingtip Toys	25	Cold	
new project planned start May	Fabrikam, Inc.	3/29/2024	\$200,000.00		Fabrikam, Inc.	90	Hot	
planned upgrades	Fabrikam, Inc.	3/31/2024	\$12,594.00		Fabrikam, Inc.	90	Hot	
new site	Wingtip Toys	3/31/2024	\$10,771.08		Wingtip Toys	90	Hot	
new project	Wingtip Toys	4/5/2024	\$33,648.62		Wingtip Toys	90	Hot	

All # A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Rows: 399

Personal Charts

- Creating Personal Charts
 - Role Based Access
 - Freedom
 - Creativity & Sharing
 - Process time and ROI



My Open Opportunities - HOT Edit columns Edit filters Filter by keyword

Topic	Potential Custo...	Est. close date	Est. revenue	Contact	Account	Probability	Rating	Email (Potential Customer)
5 Café A-100 Automatic	Trey Research	2/18/2024	\$77,500.00	Alex Baker	Trey Research	85	Hot	
6 orders of Product SKU JJ202 (sample)	Fourth Coffee (sa...	2/18/2024	\$10,000.00	Maria Campbell (s...	Fourth Coffee (sa...	90	Hot	
9 Café PG-1 Grinders for A. Datum	A. Datum Corpora...	3/13/2024	\$35,991.00	Kevin Martin	A. Datum Corpora...	80	Hot	
Needs to restock their supply of Product SKU AX305; will purchase ...	Blue Yonder Airlin...	4/15/2024	\$25,000.00	Sidney Higa (sam...	Blue Yonder Airlin...		Hot	
Very likely will order 18 Product SKU JJ202 this year (sample)	Alpine Ski House (...)	5/18/2024	\$30,000.00	Paul Cannon (sam...	Alpine Ski House (...)		Hot	
They sell many of the same items that we do - need to follow up (sa...	Contoso Pharmac...	6/21/2024	\$26,000.00	Robert Lyon (sam...	Contoso Pharmac...	95	Hot	
Will be ordering about 110 items of all types (sample)	Coho Winery (sa...	7/19/2024	\$25,000.00	Jim Glynn (sample)	Coho Winery (sa...	80	Hot	

1 - 7 of 7 Page 1

System Charts

- Can be based on personal views or system views
- Defined for users that don't want to customize
- Focused data
- Admin needed



Power Apps | Solutions - Dynami x Opportunity Revenue Estimate: x +

make.powerapps.com/environments/f933f6f9-4f34-e1b3-a411-e2c2b8ee3d12/solutions/3147d395-6906-ef11-9f89-000d3a12c91b/objects/dashboards

Apps Dana browser links TIMER D365CRM Admin Stoneridge 2023 release wave 2 Projects Summit 2023 Create and manage... Timely v3 - PowerA... DynamicsCon 2Win! Learning Copilot All Bookmarks

Power Apps Search Environment Service Test


Objects < + New Add existing Publish all customizations Search

DynamicsCon2024 > Dashboards

Display name ↑	Name ↓	Type ↓	Managed ↓	Last Modif... ↓	Owner ↓	Status
My Work	My Work	Dashboard	No	-	-	On
Opportunity Revenue Estimates	Opportunity Revenue Estimates	Power BI Embed...	No	-	-	On


Search

- All (5)
- Apps (1)
- Cards (0)
- Chatbots (0)
- Cloud flows (0)
- Dashboards (2)**
- Site maps (1)
- Tables (1)



Spicy Charts

- XRMToolBox Chart Editor
 - Limitations of the OOB Chart Editor in Power Platform/Dynamics CE
 - Advanced Chart Editor - Ability to modify color, font, and other key features of charts



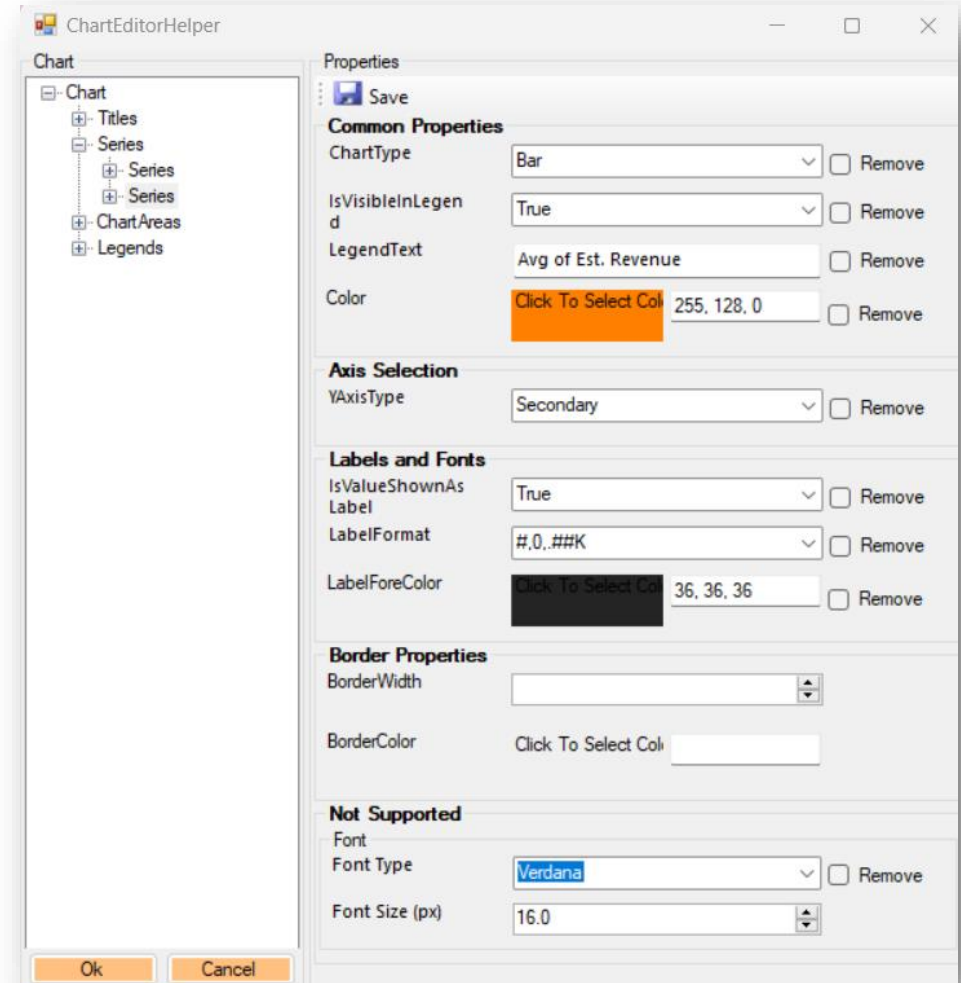
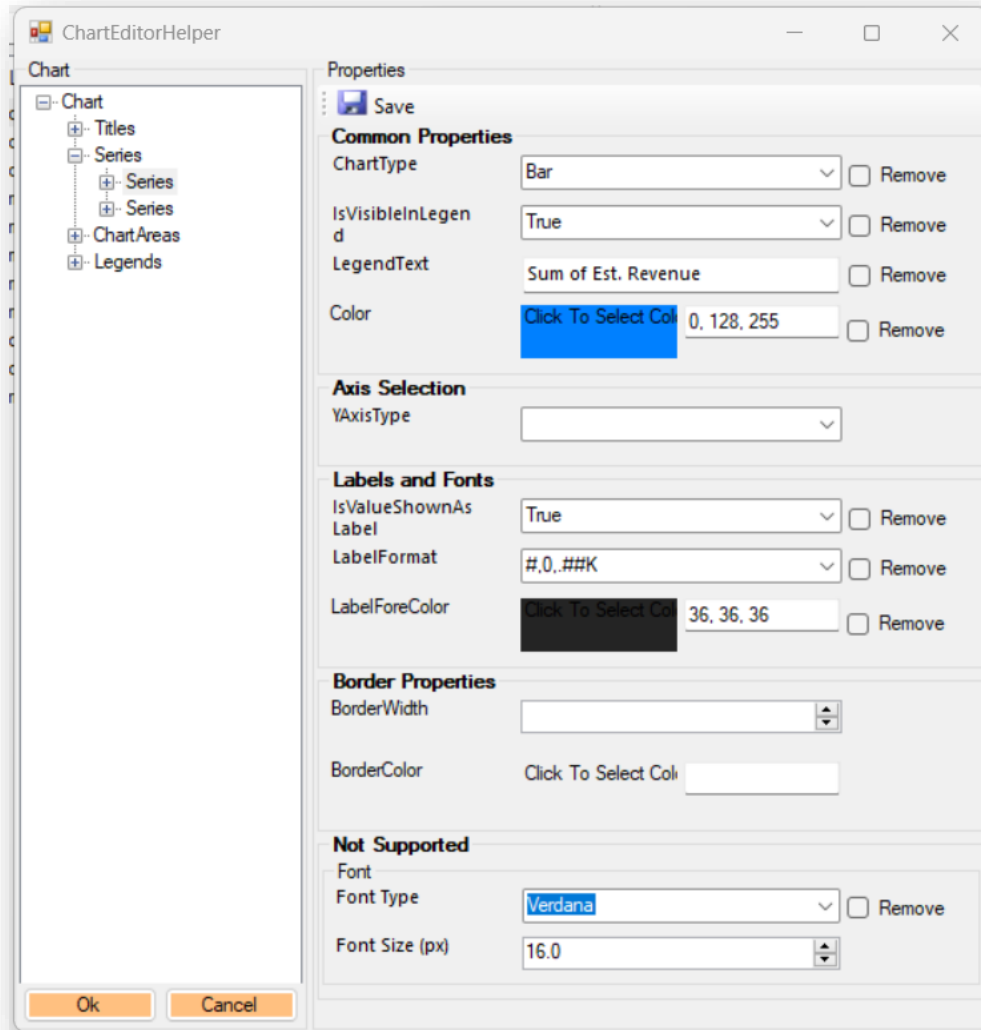
Advanced Chart Editor
1.2021.607.3
Author(s) : Mohamed Rasheed (ITLec) and Ulrik "CRM Chart Guy" Carlsson
Here you can edit the chart, and customize all its attributes.



• Before



Series Settings



- After







XrmToolBox for Microsoft Dataverse and Microsoft Dynamics 365 (v1.2023.12.68)

Connect | Windows | Configuration | Help | Open environment | Open Maker | Impersonate

Start page | Tools | Advanced Chart Editor (Stone...) | Advanced Chart Editor (Stone...)

>> chart

	Advanced Chart Editor 1.2021.607.3 Author(s) : Mohamed Rasheed (ITLec) and Ulrik "CRM Chart Guy" Carlsson Here you can edit the chart, and customize all its attributes.	6
	Chart Manager 1.2017.3.1 Author(s) : MscrmTools Allows you to export and import charts	3
	Personal Views/Charts/Dashboards Transfer Tool 1.0.0.8 Author(s) : Andrew Butenko Using this tool user can transfer personal views, charts and dashboards between environments (including shares with other users/teams)	1
	Power Query (M) Builder 1.2019.423.8 Author(s) : Mohamed Rasheed (ITLec) and Ulrik "CRM Chart Guy" Carlsson (eLogic LLC) Create Power Query (M) scripts for Dynamics 365 and Power BI	1

How can I help XrmToolBox ?

Donate on PayPal

XrmToolBox is free and it won't change. But you can show your support by making a donation to its author.

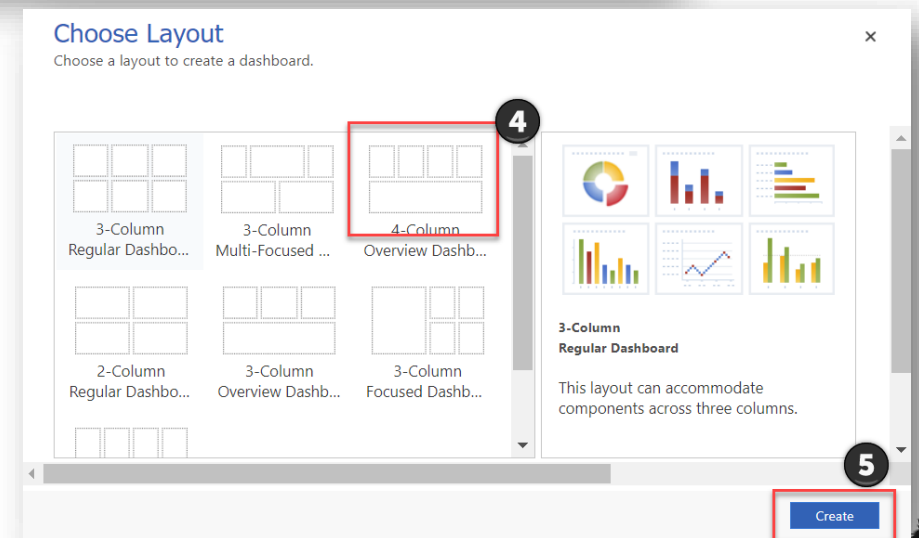
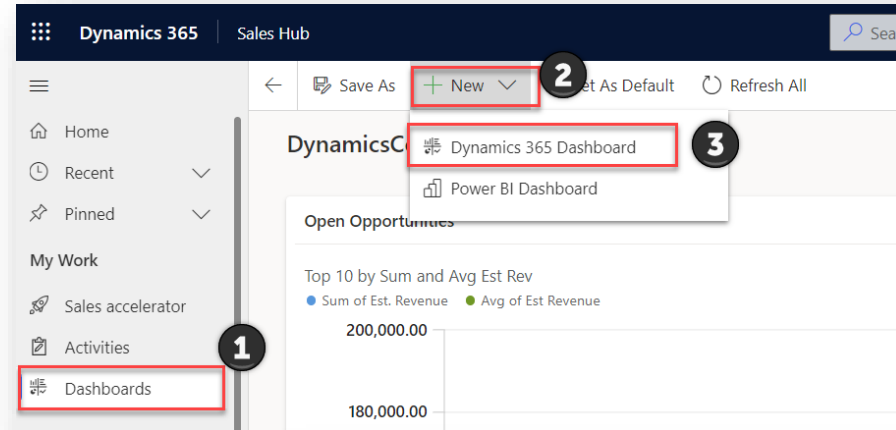
[Click here to donate](#)



[Dismiss](#)

Personal Dashboards

- Creating Personal Dashboards
 - Sharable *can be a detractor
 - Can Embed existing PBI Dashboards (pre-existing and accessible)
 - Can be moved with XRMToolBox to other environments – but if widespread sharing best to be a system dashboard
 - Heavy maintenance: share the view, then the chart, then the dashboard



- Home
- Recent
- Pinned
- My Work
 - Sales accelerator
 - Activities
 - Dashboards**
- Customers
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 - Products
- Sales

Sales Dashboard

Save As | New | Set As Default | Refresh All | Share

My Activities | Task | Email | Appointment | Phone Call | Letter | Filter by keyword

Activity Type	Subject	Regarding	Priority	Start Date	Due Date
Task	Evaluation Plan agreed upon (sample)		Normal	1/15/2024 4:00 AM	1/15/2024 4:00 AM
Phone Call	Likes some of our new products (sample)		High	1/15/2024 6:00 AM	1/15/2024 6:00 AM
Phone Call	availability of Product catalogs (sample)		High	1/17/2024 4:00 AM	1/17/2024 4:00 AM
Phone Call	Very likely will order from us (sample)		High	1/18/2024 8:00 AM	1/18/2024 8:00 AM
Task	Pain admitted by sponsor (sample)		Normal	1/18/2024 4:00 PM	1/18/2024 4:00 PM
Phone Call	guidelines for the warranty process (sample)		High	1/19/2024 4:00 AM	1/19/2024 4:00 AM
Task	Evaluation plan underway (sample)		Normal	1/19/2024 4:00 AM	1/19/2024 4:00 AM
Task	Sponsor has a buying vision (sample)		High	1/19/2024 8:00 AM	1/19/2024 8:00 AM

All # A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

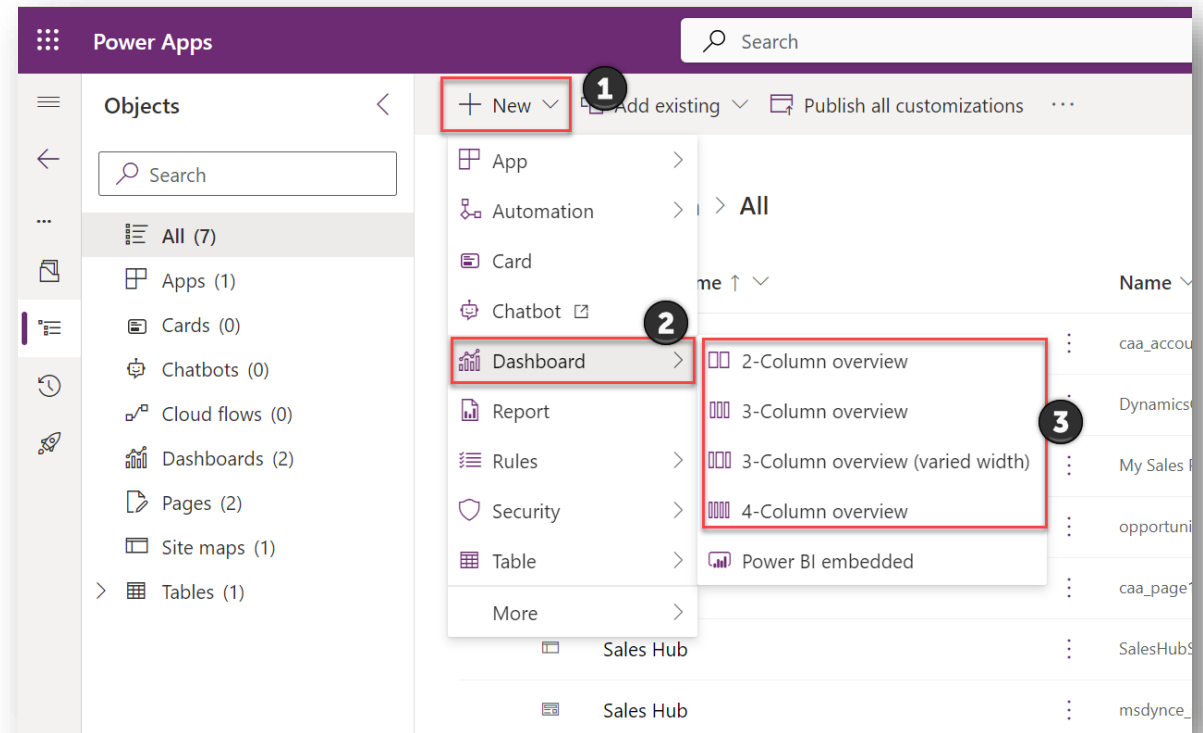
Rows: 1 - 8 of 62 | Page 1

My Active Accounts | New | Delete | Refresh | See all records | Filter by keyword

Account Name	Main Phone	Address 1: City	Primary Contact	Email (Primary Contact)
A. Datum Corporation	425-555-0158	Redmond		
A. Datum Corporation (sample)	555-0158	Redmond	Rene Valdes (sample)	someone_i@example.com
Adventure Works	812-555-0175	Bloomington	Amos Conner	

System Dashboards

- Create Views and Charts First
- Standard OOB versus PowerBI Embedded
- Optional Site Map additions



Objects <

Search

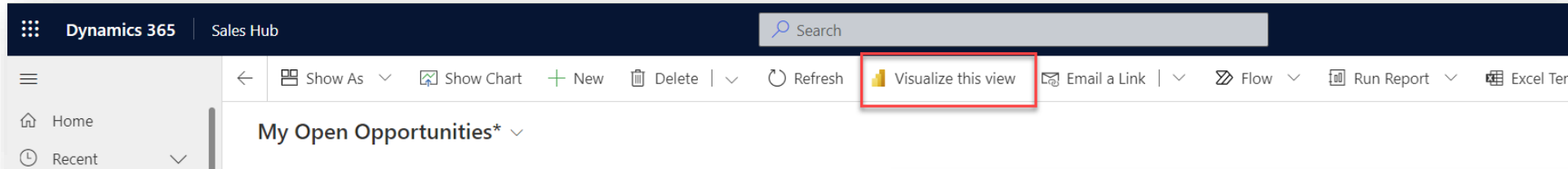
- All (4)
- Apps (1)
- Cards (0)
- Chatbots (0)
- Cloud flows (0)
- Dashboards (1)**
- Site maps (1)
- > Tables (1)

+ New Add existing Publish all customizations ... Search

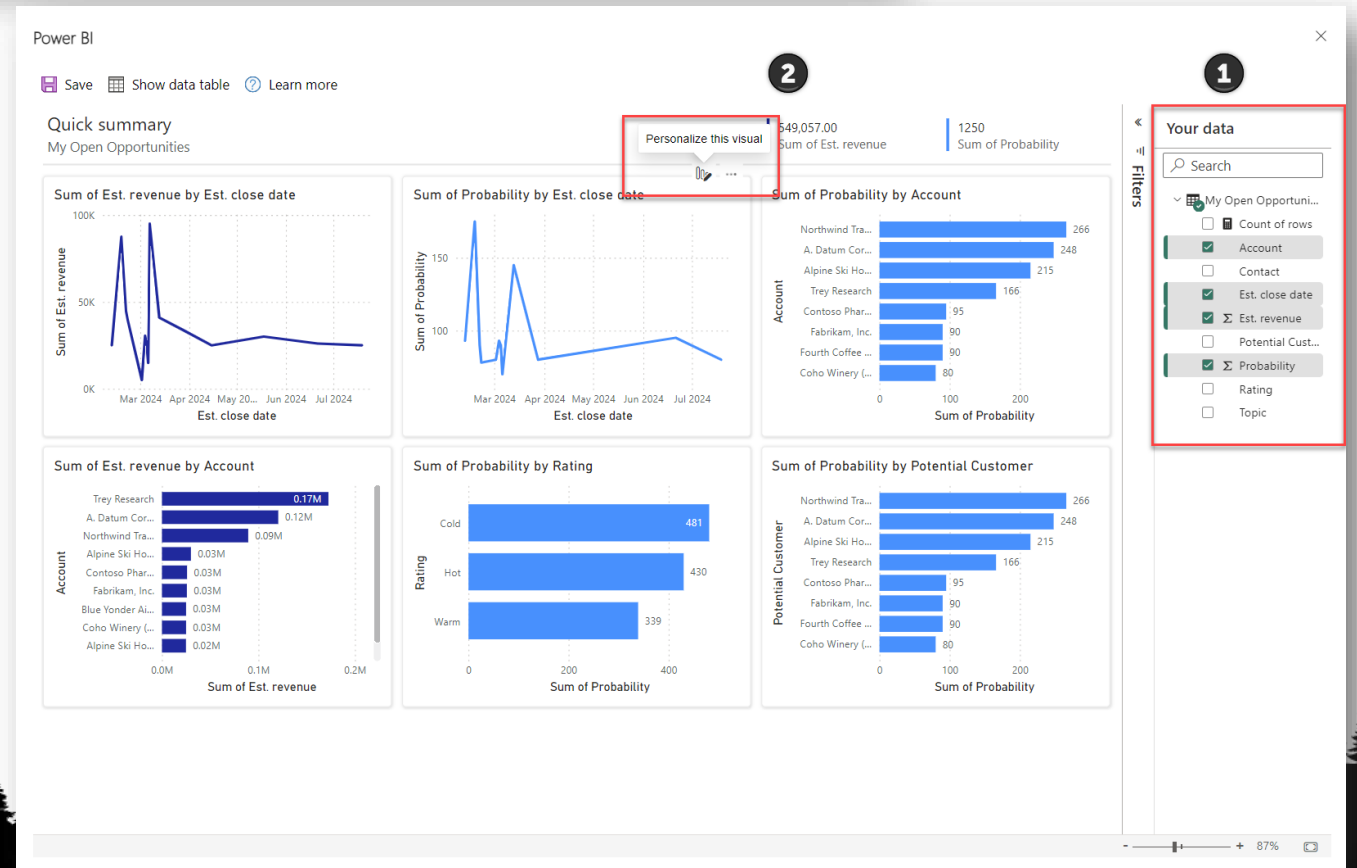
DynamicsCon2024 > Dashboards

Display name ↑	Name ↓	Type ↓	Managed ↓	Last Modif... ↓	Owner ↓	Status
Opportunity Revenue Estimates	Opportunity Revenue Estimates	Power BI Embed...	No	-	-	On

Spicy Dashboards



- PowerBI Reports for Everyone
 - Can be a personal Workspace or Shared
 - Can be embedded in a dashboard
 - Access to a free version of PBI



- Home
- Recent
- Pinned
- My Work
- Sales accelerator
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← Show As Hide Chart + New Delete Refresh Visualize this view Email a Link Flow Run Report Share

My Open Opportunities with Rating

Edit columns Edit filters

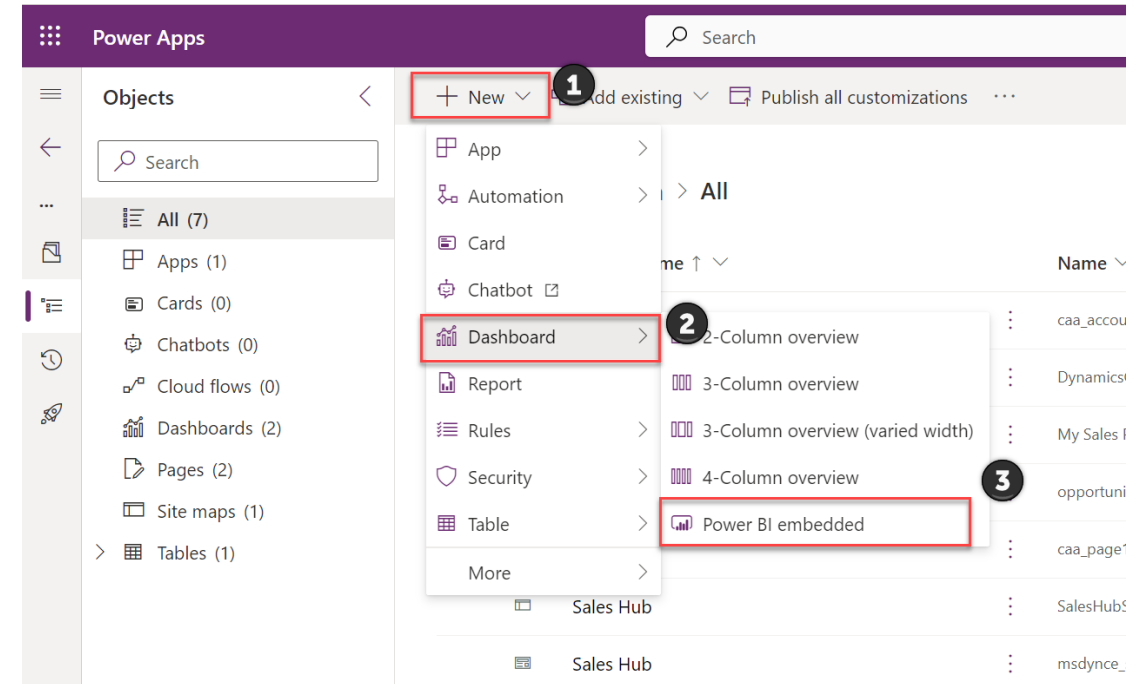
Opportunities by Est Close and Est Rev.



Topic	Potenti...	Est. close ... ↑	Est. reven...	Contact	Account	Probabi...
Adatum - update systems	Adatum ...	1/19/2024	\$9,388.00		Adatum ...	10
Fabirkam - Needs new system overhaul	Fabrikam,...	1/25/2024	\$1,211.00		Fabrikam,...	5
Fabrikam - planning updates to site	Fabrikam,...	1/26/2024	\$350,000.00		Fabrikam,...	10
planned upgrades	Fabrikam,...	2/21/2024	\$4,984.00		Fabrikam,...	15
new site	ABC fixtur...	2/29/2024	\$48,828.00		ABC fixtur...	45
<u>new project</u>	ABC fixtur...	3/25/2024	\$100,000.00		ABC fixtur...	30
existing project with updates	ABC fixtur...	3/29/2024	\$1,583.99		ABC fixtur...	25
engaging new team	Wingtip T...	3/29/2024	\$150.00		Wingtip T...	25
new project planned start May	Fabrikam,...	3/29/2024	\$200,000.00		Fabrikam,...	90
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new site	Wingtip T...	3/31/2024	\$10,771.08		Wingtip T...	90
new project	Wingtip T...	4/5/2024	\$33,648.62		Wingtip T...	90
existing project with updates	Wingtip T...	4/5/2024	\$1,490.00		Wingtip T...	80

Spicier Dashboards

- Embedded PowerBI Reports
 - Can be created from personal dashboards with setup
 - Create a One Stop Shop
 - Allows access to data without needing a license to the system where that data resides
 - Reports can be added to the Site Map for quick access



Power Apps | Solutions - Dynam... x +

make.powerapps.com/environments/f933f6f9-4f34-e1b3-a411-e2c2b8ee3d12/solutions/3147d395-6906-ef11-9f89-000d3a12c91b/objects/dashboards


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Objects < + New Add existing Publish all customizations Search


Deleted objects successfully.

DynamicsCon2024 > Dashboards

Display name ↑	Name ↓	Type ↓	Managed ↓	Last Modif... ↓	Owner ↓	Status
 <p>We didn't find anything to show here</p>						

Search

- All (3)
- Apps (1)
- Cards (0)
- Chatbots (0)
- Cloud flows (0)
- Dashboards (0)**
- Site maps (1)
- Tables (1)



The Case for SQL Server Reporting Services (SSRS) Reports

- Value Add
 - E-mailable – can be sent to customers
 - Embedded images, logos, colors
 - – for a personal or company specific look
 - Uses:
 - Invoices, Sales Order forms, Acknowledgements, report automation, field service checklists
- Detractor
 - Not OOB - Requires code
 - Not able to embed in D365 dashboards
 - Accessible in D365 only with custom code and buttons (can add links in reports table)



Finding Value in Reporting Methods

- **D365 Dashboards**

- Personal/Org use
- Quick visual of basic data
- Focused daily use
- Some customization with XRMToolBox goes a long way

- **PBI Embedded Dashboards**

- Combined data sources
- Access to data without a license
- Incredible visualizations

- **SSRS**

- Customized branding
- Emailing
- Custom images



Summary

- Personal Views, Charts and Dashboards
- System Views, Charts and Dashboards
- Spicy options for enhancing Views, charts and Dashboards using Tools and a little elbow grease



Questions & Comments





Dana Service

Microsoft Certified Professional

Solution Architect

Stoneridge Software

dana.service@stoneridgesoftware.com

linkedin.com/in/dana-service

Microsoft® Certified: Dynamics CRM

User Group Leader – Arizona

16 years in Dynamics CRM:

D365 Power Platform

2011, 2016 CRM On Prem

D365 Online CRM for Sales, Customer Service, Marketing,
and Field Service

