Business Central and Power BI

Better together

www.directions4partners.com

Abstract

- Want to add cutting-edge analytical capabilities to your ERP system using Business Central and Power BI together? Then come along for a journey through the wonders of powerful business systems mixed with top-notch data modeling and visualization capabilities. A true match made in heaven.
- In this session we will talk about the synergies between Business Central and Power BI, how you decide which tools to use for which task, sprinkled with a data architecture recommendations.
- After watching this session we hope you have a new-found inspiration for the possibilities of combining Business Central with Power BI, as well as a solid foundation of do's and don'ts when building out your data and reporting capabilities.

  Topics:
  - Business Central and Power BI
  - Modern Reporting architecture
  - Synergies and capabilities

FLUXBI

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JDM A/S

Business Intelligence Consultant
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Chief Digital Officer (CDO)
Clayton Power

University of Southern Denmark
MSc in Engineering, Product Development and Innovation

Sergeant, Royal Danish Air Force
Forsvaret

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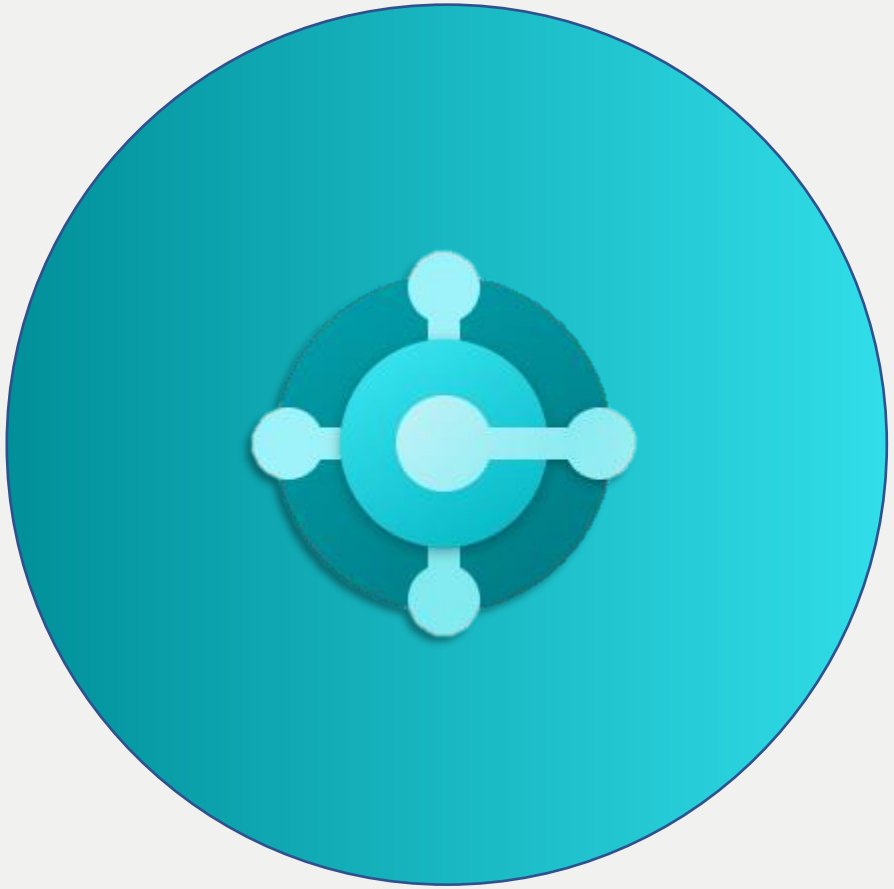
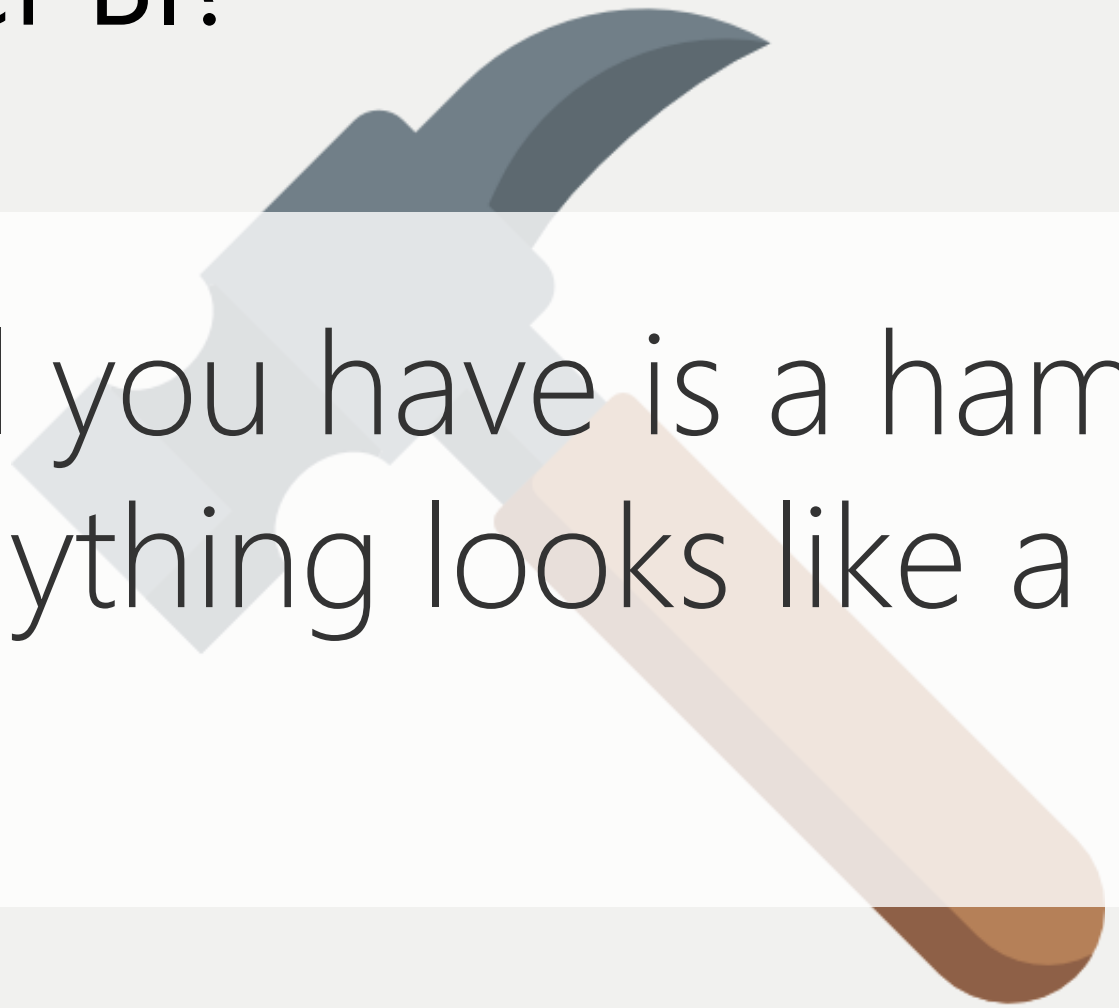
Agenda

- Why Power BI and what is it?
- Integrations
  - Out-of-the-box apps
  - Embedding Power BI in Business Central (2 places)
  - Custom reports on Business Central Data
- Data Architecture

Why Power BI?



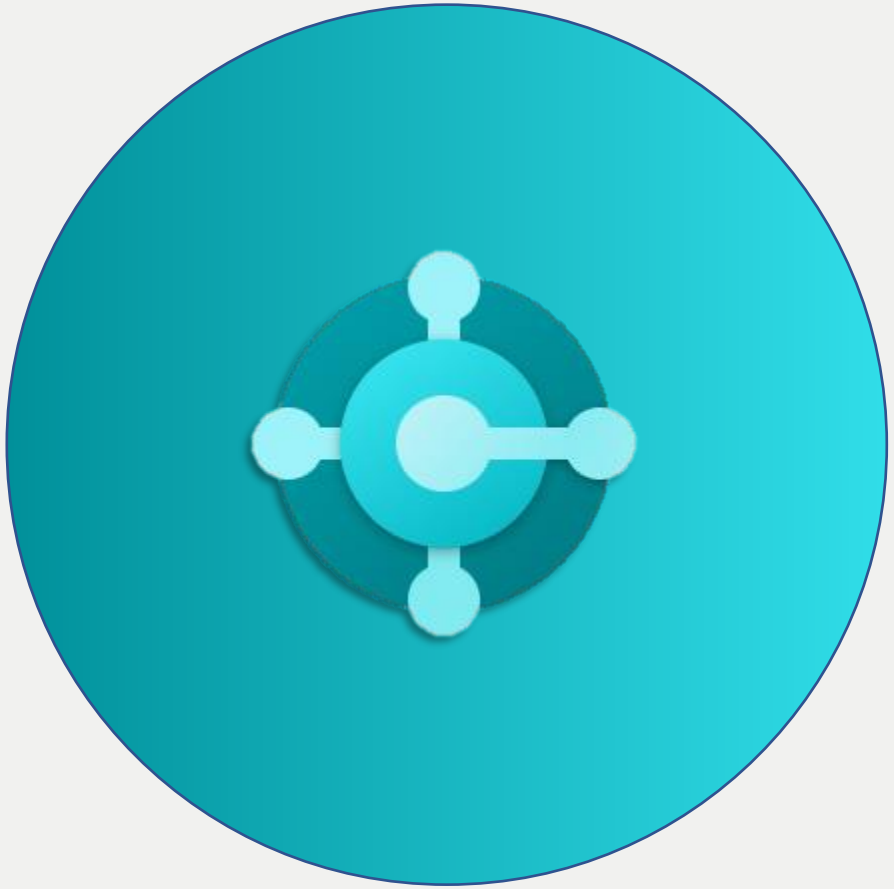
Why Power BI?



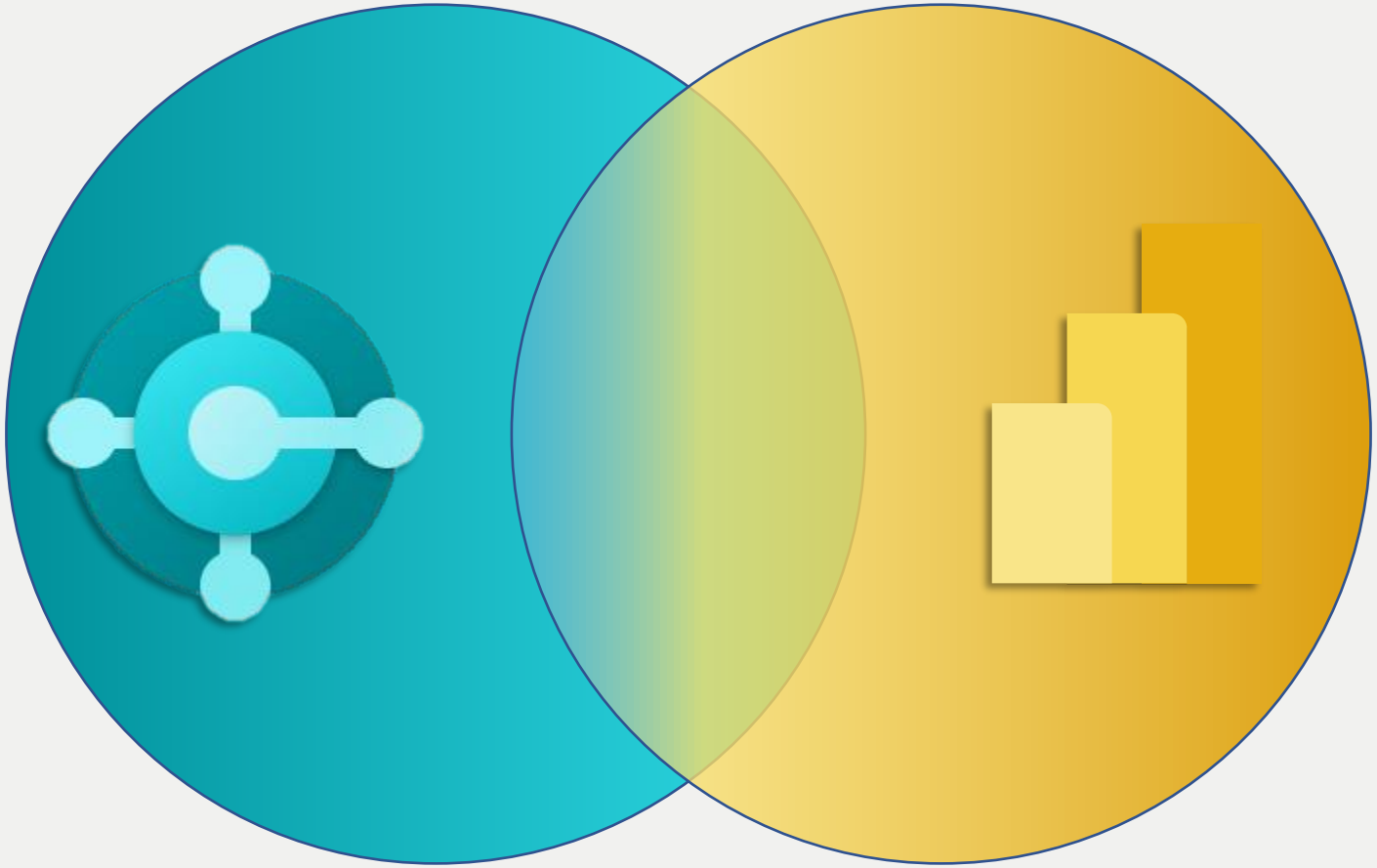
"If all you have is a hammer, everything looks like a nail"

- A. Maslow

Why Power BI?



Why Power BI?



What is Power BI?

Contoso MANUFACTURING

Overview | OEE | Production | Operating Time | Insights

Overall Equipment Effectiveness
68.9% !
PY: 68.8% (+0.0663%)

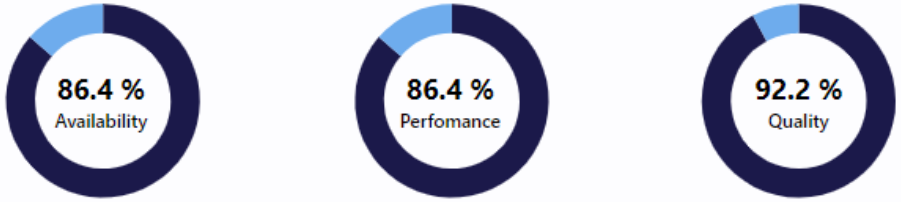
Total Produced
1,675,242 !
PY: 1,563,869 (+7.1216%)

Finished Goods
1,544,041 !
PY: 1,441,172 (+7.1379%)

Scraps
131,201 !
PY: 123,692 (+6.0707%)

Year
2021

Overall Equipment Effectiveness



Operating Time

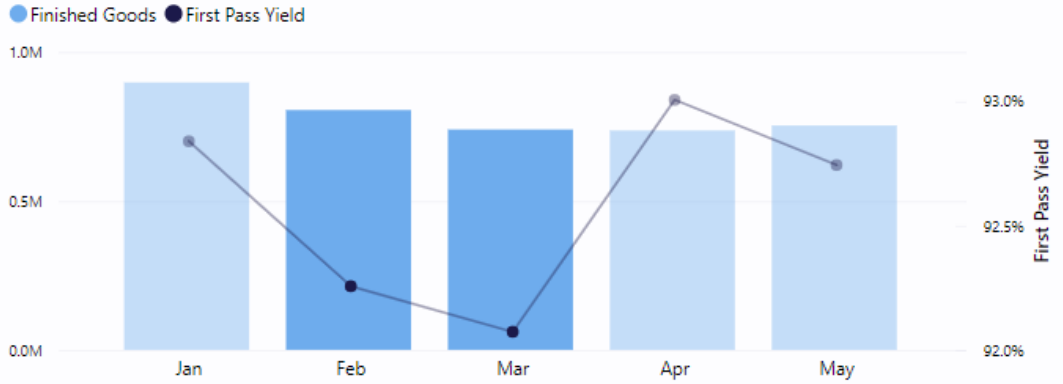
Ideal Operating Time
118
LY: 110 (+7.2727%)

Net Operating Time
95
LY: 15 (+533.3333%)

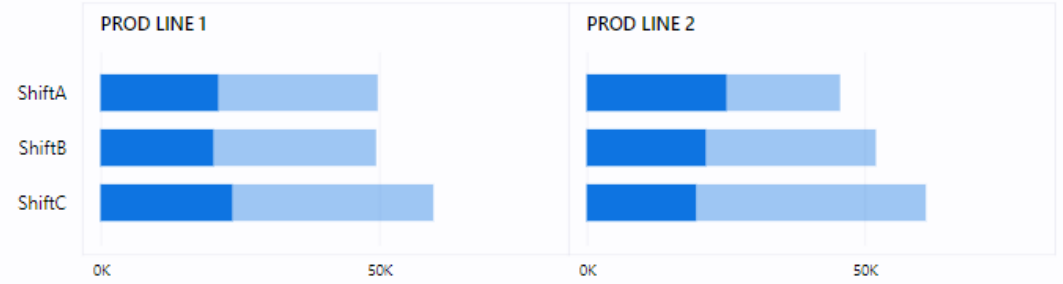
Availability % by Month

Production

Finished Goods VS First Pass Yield



Reject Count by Product



2 - Manufacturing Power BI, Overview
Data updated on 6/16/22, 6:16 PM

FLUXBI

Power BI

- Self-Service Reporting
- Data Transformation Capabilities
- Data Modeling Capabilities
- Data Catalog
- Data Access management

Power BI

- Technical engine:
  - Columnstore
  - RAM-based
  - Compressed

Product Columns

ID	Name	Color	Unit Price
1	Camcorder	Red	112.25
2	Camera	Red	97.50
3	Smartphone	White	100.00
4	Console	Black	112.25
5	TV	Blue	1,240.85
6	CD	Red	39.99
7	Touch screen	Blue	45.12
8	PDA	Black	120.25
9	Keyboard	Black	120.50

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Integrations

- Premade Business Central Apps in Power BI
  - (new) Telemetry app!
- Embed Power BI into Business Central
- Create specialized reports on Business Central data

Premade Business Central Apps for Power BI

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Microsoft Dynamics 365 Business Central - Sales

Item Sales Dashboard

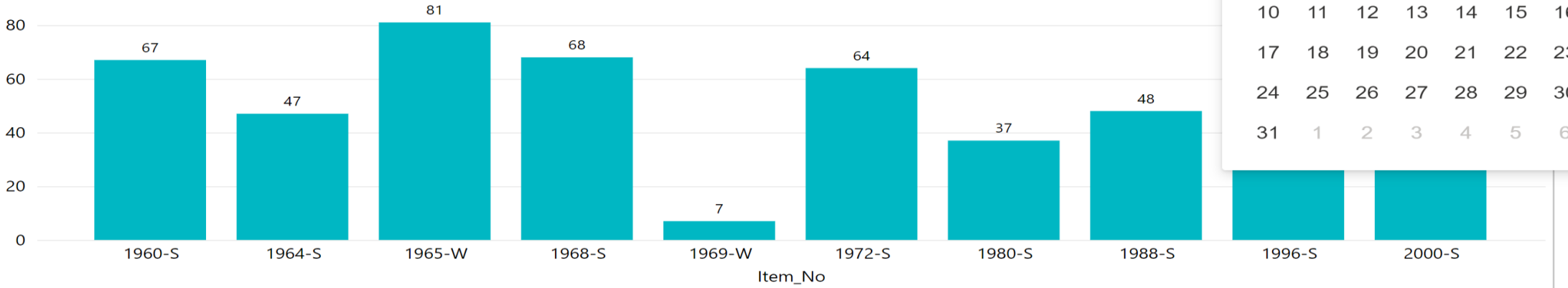
PRODUCTION | CRONUS USA, Inc.

6/1

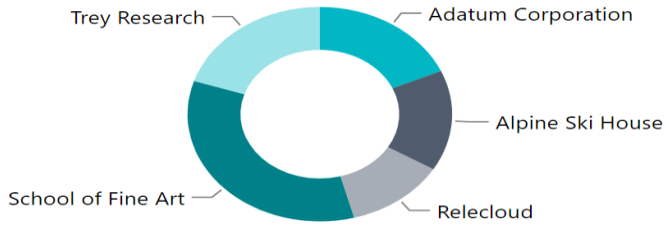
January 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Top 10 Items Sold by Quantity

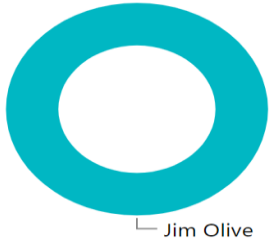


Top 5 Customers by Quantity Sold



Quantity Sold by Sales by Posting Group

Quantity Sold by Salesperson Name



Microsoft Dynamics 365 Business Central - Sales, Items Sales Dashboard

Data updated on 6/18/22, 12:23 AM

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Microsoft Dynamics 365 Business Central - Sales

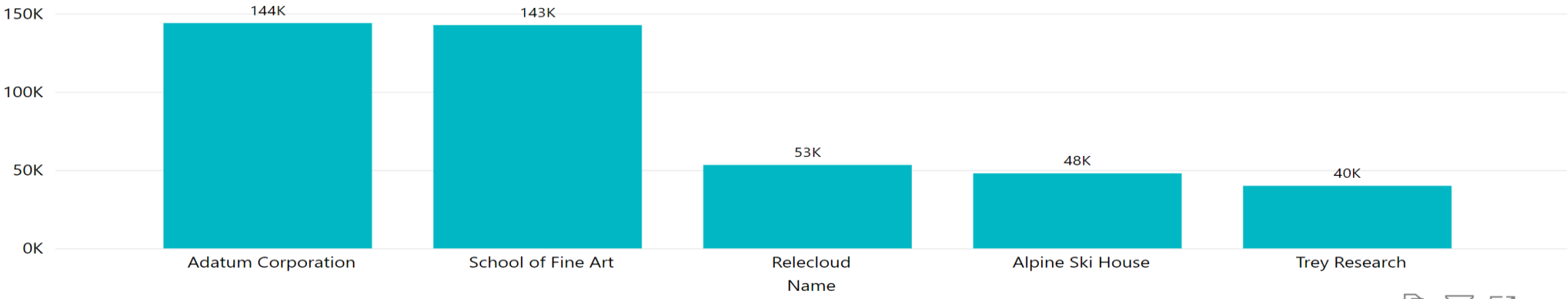
Customer Sales Dashboard

PRODUCTION | CRONUS USA, Inc.

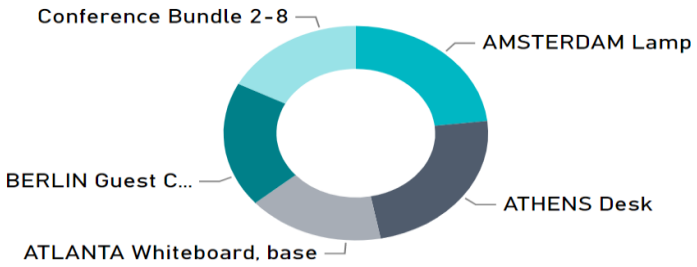
6/18/2021 4/1/2022

Filters

Top 10 Customers by Amount Sold

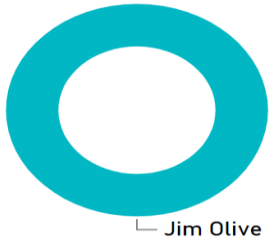


Top 5 Items by Quantity Sold



Amount Sold by Sales by Posting Group

Amount Sold by Salesperson Name



Microsoft Dynamics 365 Business Central - Sales, Customer Sales Dashboard

Data updated on 6/18/22, 12:23 AM

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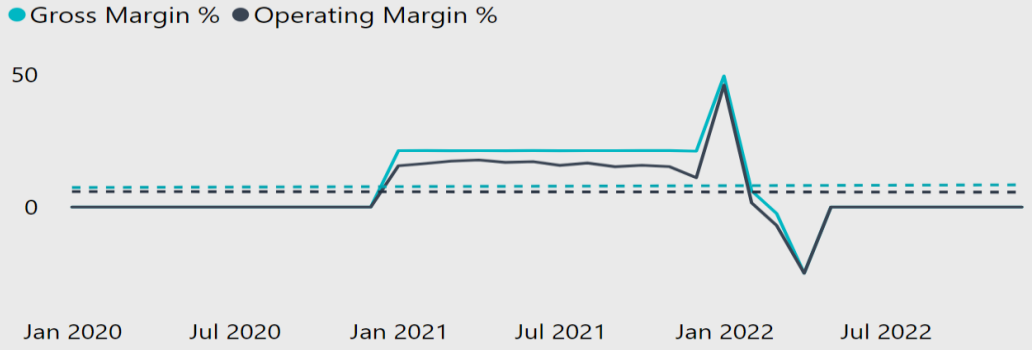
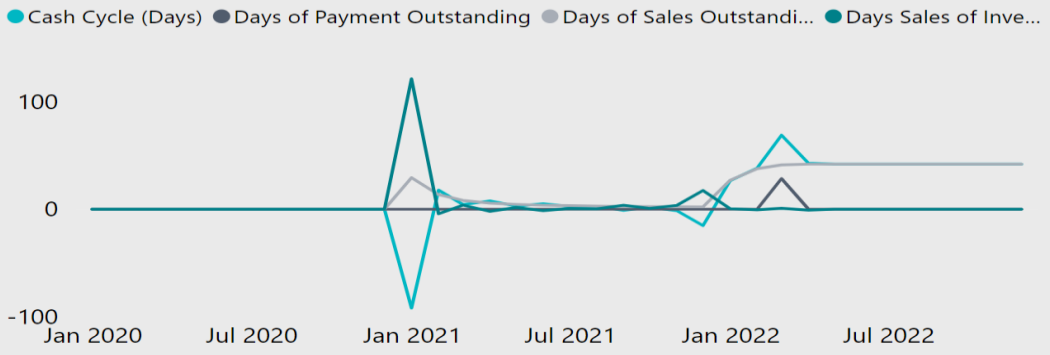
Microsoft Dynamics 365 Business Central - Finance

Financial Dashboard

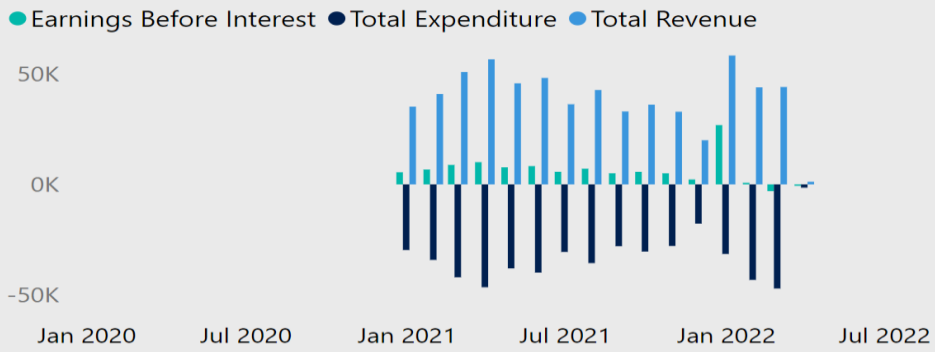
Gross Margin & Operating Margin % Change by Date



Net Change by Date & KPI Name



Net Change in EBI, Expenditures and Revenue by Date



Mini Trial Balance

KPI_Code	KPI_Name	Net_Change_Actual
30	Gross Margin	131,953.30
40	Gross Margin %	283.38
90	Income before Interest and Tax	101,953.30
50	Operating Expenses	30,000.00
60	Operating Margin	101,953.30
70	Operating Margin %	206.41
80	Other Expenses	0.00
20	Total Cost	494,030.40
10	Total Revenue	625,983.70

Filters

Microsoft Dynamics 365 Business Central - Finance, FinancialDashboard

Data updated on 6/18/22, 12:23 AM

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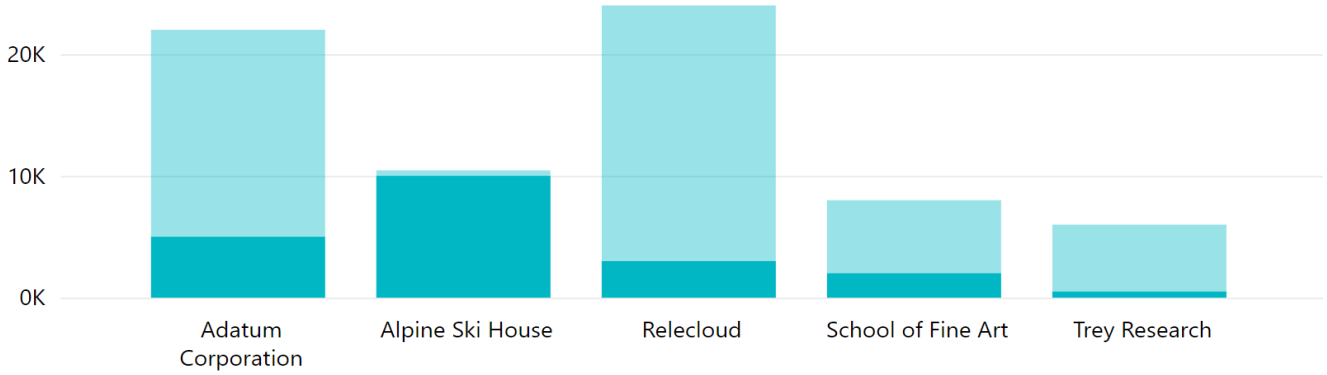
Opportunity Dashboard

PRODUCTION | CRONUS USA, Inc.

Estimated Value by Company Name



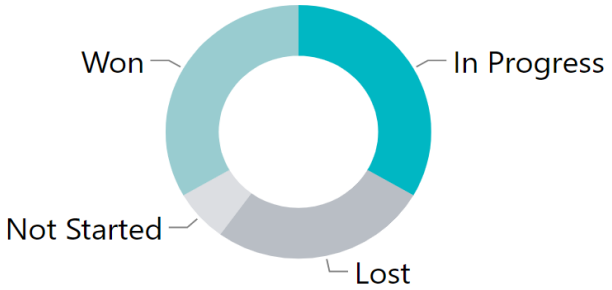
Estimated Close Date

10/4/2021 — 3/22/2022

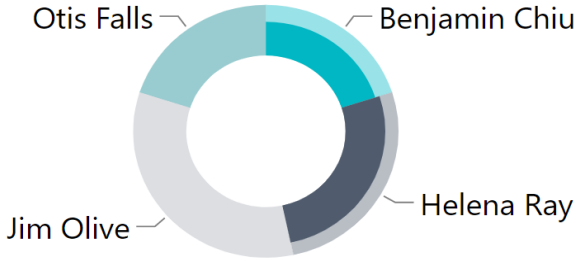
Date Closed

10/4/2021 — 1/27/2022

Count by Status



Count by Salesperson Name



Opportunities - Estimated Value

20,500.00

Opportunities - Calculated Curren...

410.00

Filters

Microsoft Dynamics 365 Business Central - CRM, OpportunityDashboard
Data updated on 6/18/22, 12:29 AM

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Microsoft Power BI

Page views

Tenant/Environment/Company

All

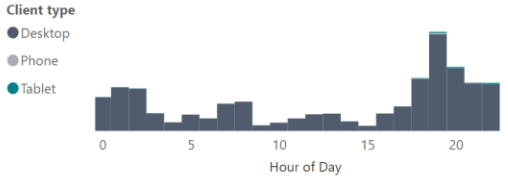
This page shows the pages that users visit, how often, and on which days and hour of the day they do it.

Pageview Statistics

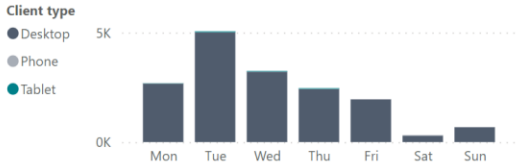
Count	Page Type	Page name	Object id	Extension	Publisher	Version
2048	Card	Dialog	-1	Platform	Microsoft	-
1458	Card	PageSearchForm	-1	Platform	Microsoft	-
1389	RoleCenter	Business Manager Role Center	9022	Platform	Microsoft	-
433	Card	HelpAndSupport	-1	Platform	Microsoft	-
247	List	Accessible Companies	9210	System Application	Microsoft	20.1
239	Card	ProductOverview	-1	Platform	Microsoft	-
230	List	Accessible Companies	9210	System Application	Microsoft	20.0
219	StandardDialog	User Settings	9204	System Application	Microsoft	20.0
179	Card	String Menu	-1	Platform	Microsoft	-
143	Card	FileUploadForm	-1	Platform	Microsoft	-
133	StandardDialog	User Settings	9204	System Application	Microsoft	20.1
123	List	Customer List	22	Base Application	Microsoft	20.0
117	Card	Customer Card	21	Base Application	Microsoft	20.0
115	List	Accessible Companies	9210	System Application	Microsoft	19.5
95	NavigatePage	Company Creation Wizard	9192	Base Application	Microsoft	20.1
16413						

Pageviews over the Day

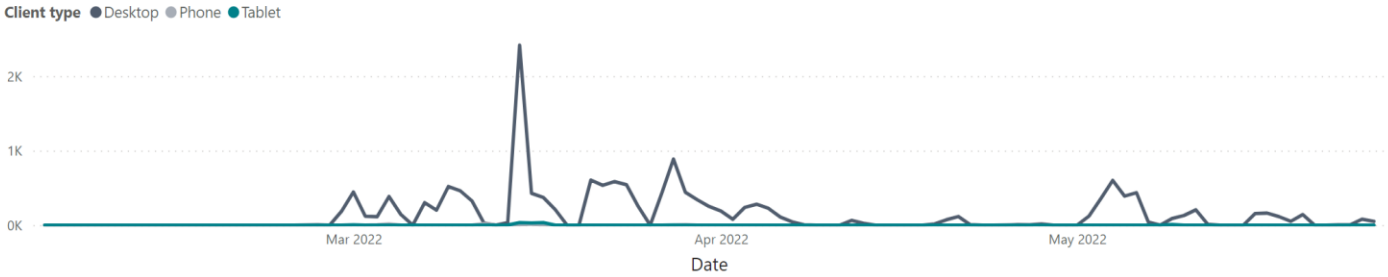
(UTC-10:00) Hawaii



Pageviews over the Week



Pageviews by date



Filters

Usage, Page views

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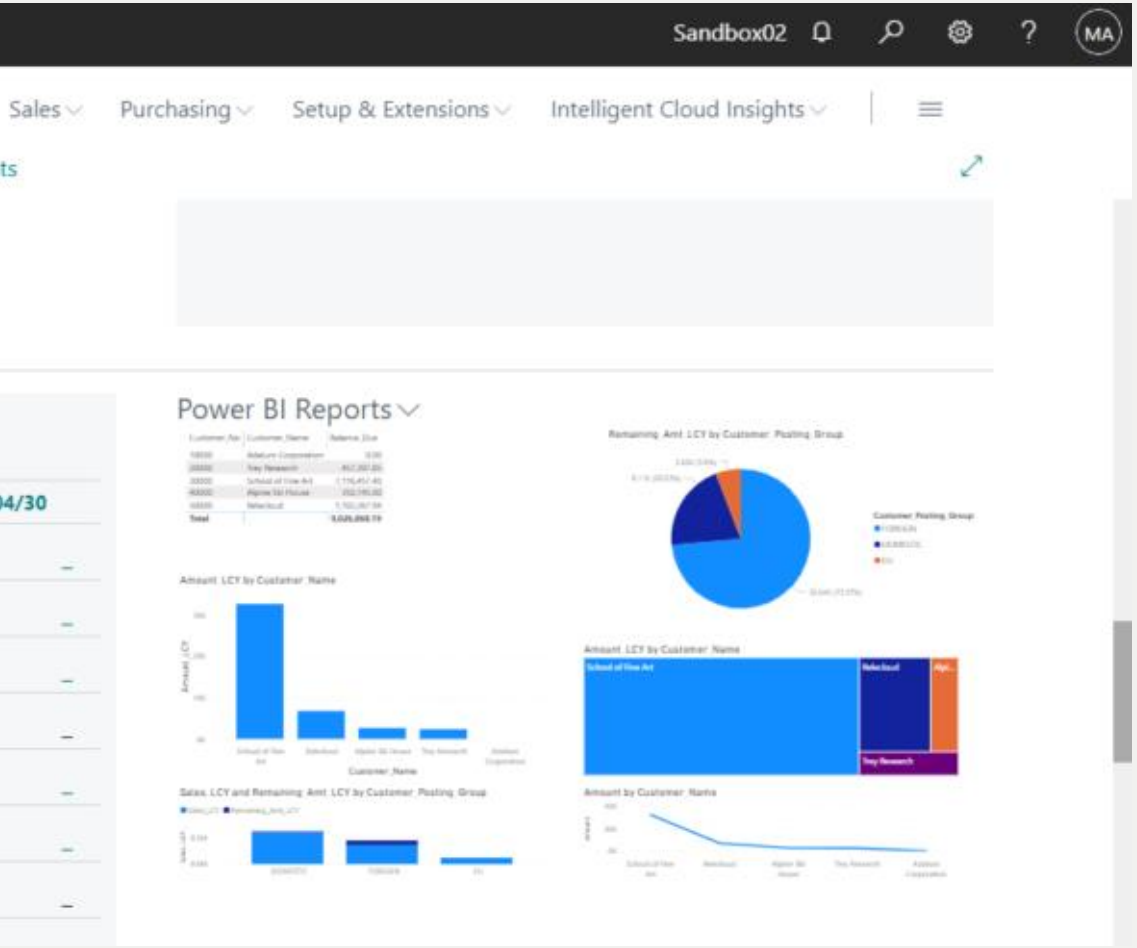
Resources:

- Using Business Central Apps in Power BI - Business Central | Microsoft Docs
- Enable Sending Telemetry to Application Insights - Business Central | Microsoft Docs
- Telemetry app · BCTech · Readme | Microsoft GitHub

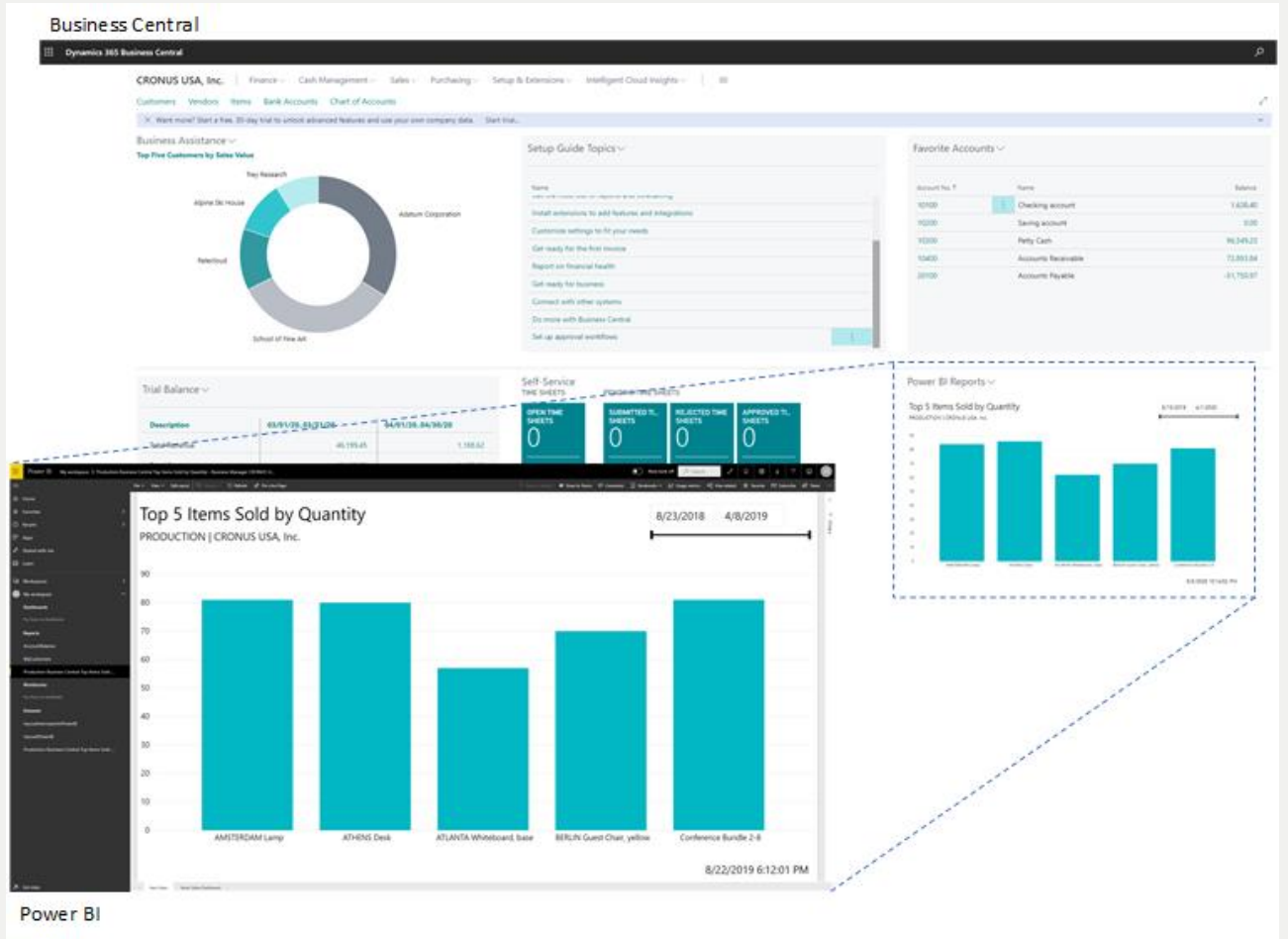
Embed Power BI into Business Central

FLUXBI

Embedding



Role center



List

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Resources:

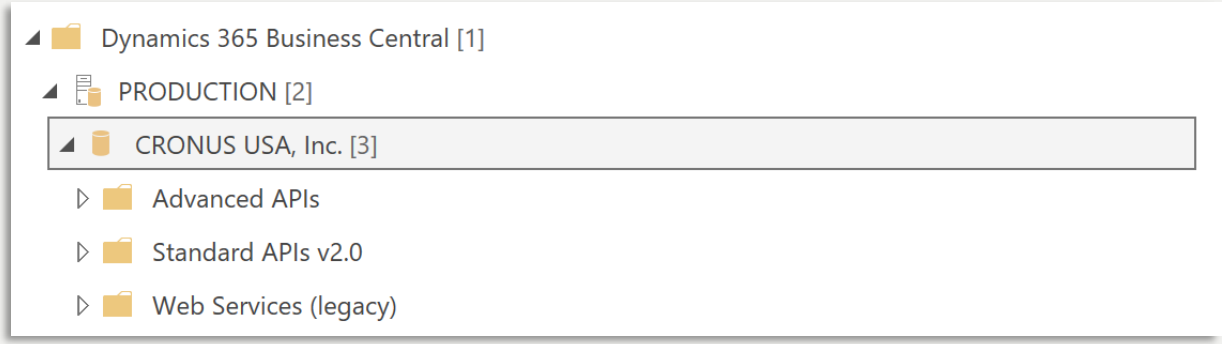
- Working with Power BI Reports in Business Central - Business Central | Microsoft Docs

Create custom reports with data from Business Central

FLUXBI

Data hand-off

- Exposing data – One connector – 3 methods + 2 alternatives
  - Web service (Legacy)
  - Simple API
  - Advanced API



  Alternatives:

  - OData Query
  - **(new - experimental)** Business Central to Azure Data Lake Storage (BC2ADLS)

Resources:

- Working with Business Central Data In Power BI - Business Central | Microsoft Docs
- Connecting to Dynamics 365 Business Central API v2... - Microsoft Power BI Community
- Building Reports in Power BI Desktop to Display Business Central Data | Microsoft Docs
- Fix error: (400) Bad Request. Cannot modify a record. Connection intent is Read-Only
- GitHub - Exporting data from Dynamics 365 Business Central To Azure Data Lake Storage

Utilize Power BI

We make your life easier

Reporting workloads (Paginated is similar, not much new)

Integration with other systems

More value-add from BC

Do as Microsoft, use pretty PBI reports in marketing

Questions

Thank you for listening

Now go supercharge your
Business Central with **Power BI**

Presentation Slides

FLUXBI