

# Introducing: Analyze data on lists and queries



# Agenda

- The world is changing
- Analyze Data on list pages
- Analyze Data on queries
- Share an analysis definition with a co-worker
- Turn off the feature with a new permission
- Learning resources
- Go-dos

The world is  
changing



# The word *Reporting* in Dynamics 365 Business Central means three things

## **Analytical** reports

Chart of Account

Purchase statistics

Customer - Top 10 list

...

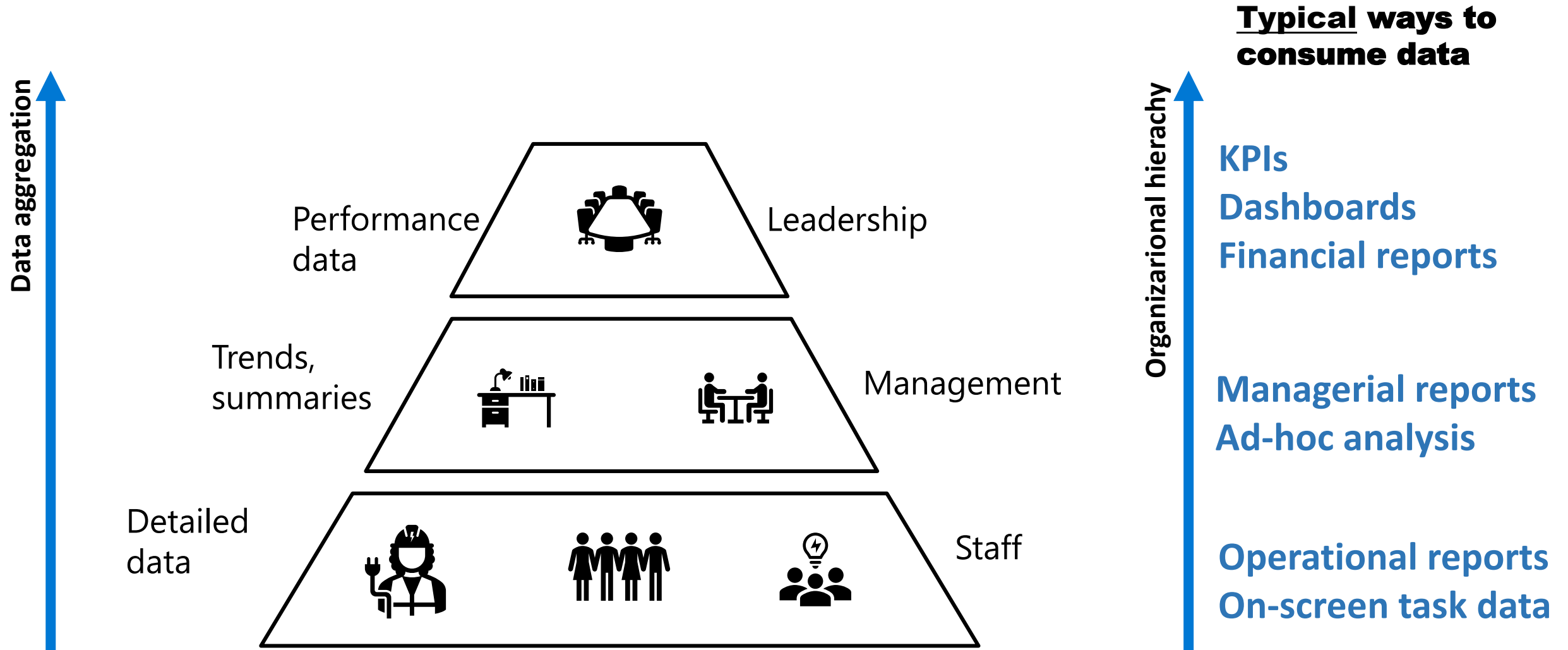
**Processing only** reports (AL code with a request page)

**Printable documents** (e.g. invoices)



Not covered in this presentation

# Typical *analytics* needs in organizations



**Vision: all analytics/reporting is designed for online consumption (not print)**

1. Consume data: Core business scenarios have **out-of-the-box reporting/analytics**
2. Enable: Most user analytics needs covered with **nocode/lowcode** solutions
3. Enable: Customers have **easy access to data** – for advanced BI and analytics

ISVs can deliver analytics as well

There is also document reporting ([not part of this presentation](#))

Analyze Data on  
list pages

# Analyse Data on List Pages in a nutshell...

Before (run a report, get a PDF)

Aged Accounts Receivable

CRONUS Danmark A/S

2/9/2023 11:51 AM

Page 1 / 3

ADMIN

Aged as of January 31, 2022

Aged by Due Date

All Amounts in LCY

Aged Overdue Amounts										
Posting Date	Document Type	Document No.	Due Date	Original Amount	Balance	Not Due	01/01/22 ..01/31/22	12/01/21 ..12/31/21	11/01/21 ..11/30/21	Before 11/01/21
10000 - Kontorcentralen A/S										
Phone No.:				Contact: Robert Townes						
01/20/22	Invoice	103199	02/20/22	11,868.75	11,868.75	11,868.75	0.00	0.00	0.00	0.00
01/21/22	Invoice	103200	02/21/22	9,742.50	9,742.50	9,742.50	0.00	0.00	0.00	0.00
01/22/22	Invoice	103201	02/22/22	17,861.25	17,861.25	17,861.25	0.00	0.00	0.00	0.00
01/27/22	Invoice	103202	02/27/22	1,747.50	1,747.50	1,747.50	0.00	0.00	0.00	0.00
Total for Kontorcentralen A/S					41,220.00	41,220.00	0.00	0.00	0.00	0.00
20000 - Ravel Møbler										
Phone No.:				Contact: Helen Ray						
01/29/22	Invoice	103169	02/12/22	5,355.00	5,355.00	5,355.00	0.00	0.00	0.00	0.00
01/23/22	Invoice	103205	02/06/22	4,747.50	4,747.50	4,747.50	0.00	0.00	0.00	0.00
01/28/22	Invoice	103206	02/11/22	32,475.00	32,475.00	32,475.00	0.00	0.00	0.00	0.00
01/28/22	Invoice	103207	02/11/22	6,495.00	6,495.00	6,495.00	0.00	0.00	0.00	0.00
Total for Ravel Møbler					49,072.50	49,072.50	0.00	0.00	0.00	0.00
30000 - Lauritzen Kontormøbler A/S										
Phone No.:				Contact: Meagan Bond						
01/30/22	Invoice	103170	01/31/22	74,240.00	74,240.00	0.00	74,240.00	0.00	0.00	0.00
01/19/22	Invoice	103211	01/31/22	6,495.00	6,495.00	0.00	6,495.00	0.00	0.00	0.00

Now (self-service data analysis)

Customer Ledger Entries

Search Analyze Aged Accounts Receivables by customer Q1 Aged Accounts Receivables Refresh data

Customer Name / Due Date Year / Due Date Quarter / Due Date Month	Sum(Remaining Amount)
> Customer 2 (4)	8.00
> Relecloud (9)	8,836.80
> Alpine Ski House (7)	4,316.92
> School of Fine Art (22)	
2023 (22)	
Q2 (1)	
April (1)	2,039.85
Sub Total Q2	2,039.85
Q1 (21)	
March (5)	19,944.69
February (7)	20,409.93
January (9)	11,439.05
Sub Total Q1	51,793.67
Sub Total 2023	53,833.52
Sub Total School of Fine Art	53,833.52
> Trey Research (23)	3,036.60
Row: 65 of 410	
Total Row: 410	
Filtered: 65	



**With *Analyse Data on List Pages*, you can**

**Quickly extract insights** from your data directly in Business Central with no need to involve developers.

**Design data your way:** For each analysis,

- Pick columns, reorder them, freeze left/right
- Set additional data filters
- Group and pivot
- Mark cells and do some quick fact checking
- Copy some/all data, import to Excel/PowerPoint/...

**Save your analysis** for repetitive use.

# Public preview in 2023 release wave 1: Enable under Feature Management

Dynamics 365 Business Central

Feature Management

Analyse Search Edit List

✓ Saved

Feature	Learn more	Automatically enabled from	Enabled for	Get started	Current Company Status	Update Start Date/Time
Feature Update: Allow using of multiple posting groups for customer or vendor	Learn more	Update 23.0 (Q4 2023)	None	—	Disabled	
→ Feature Update: Analysis mode, quickly analyse data directly in Business Central.	Learn more	Update 23.0 (Q4 2023)	All Users	Try it out	Enabled	
Feature Update: Replace the existing Automatic Account Codes functionality with the Feature Update: Analysis mode, quickly analyse data directly in Business Central.				—	Disabled	
Feature Update: Currency symbol mapping in a Dataverse integration	Learn more	Update 22.0 (Q2 2023)	None	—	Disabled	
Feature: Check documents and journals while you work	Learn more	Update 22.0 (Q2 2023)	All Users	—	Enabled	
Feature Update: Email logging using the Microsoft Graph API	Learn more	Update 22.0 (Q2 2023)	None	—	Disabled	
Feature Update: Use the platform table 'Report Layout List' for adding and selecting lay...	Learn more	Update 23.0 (Q4 2023)	None	—	Disabled	
Feature: Report read-only data access	Learn more	Update 22.0 (Q2 2023)	All Users	—	Enabled	
Feature Update: Enable use of new extensible exchange rate adjustment, including posti...	Learn more	Update 23.0 (Q4 2023)	None	—	Disabled	
Feature Update: Enable use of new extensible invoice posting engine	Learn more	Update 23.0 (Q4 2023)	None	—	Disabled	
Feature Update: Automatically accept intercompany general journal transactions	Learn more	Update 22.0 (Q2 2023)	None	—	Disabled	
Feature: Enable using Form 1096 to transmit paper Tax Forms to the IRS in the United St...	Learn more	Update 23.0 (Q4 2023)	None	—	Enabled	
Feature Update: Modern Action Bar	Learn more	Update 24.0 (Q2 2024)	All Users	Try it out	Enabled	
Feature Update: Legacy list views are hidden	Learn more	Update 23.0 (Q4 2023)	None	Try it out	Disabled	
Feature Update: Enable a new user experience for creating demand forecasts	Learn more	Update 22.0 (Q2 2023)	All Users	—	Enabled	
Feature Update: New time sheet experience	Learn more	Update 21.0 (Q4 2022)	All Users	—	Enabled	
Feature Update: Map to option sets in Dataverse without code	Learn more	Update 22.0 (Q2 2023)	None	—	Disabled	
Feature Update: Use tracking by package number in reservation and tracking system	Learn more	Update 21.0 (Q4 2022)	None	—	Disabled	
Feature Update: Enable inventory and warehouse pick from Jobs	Learn more	Update 22.0 (Q2 2023)	None	—	Disabled	
Feature: New Microsoft Word report rendering platform.	Learn more	Update 22.0 (Q2 2023)	All Users	—	Enabled	
Feature Update: Replace the existing Intrastat functionality with the new Intrastat extensi...	Learn more	Update 23.0 (Q4 2023)	None	—	Disabled	
Feature Update: Replace Multiple Interest Rate CZ with Finance Charge Interest Rate	Learn more	Update 22.0 (Q2 2023)	None	—	Disabled	
Feature Update: New sales pricing experience	Learn more	Update 22.0 (Q2 2023)	None	—	Disabled	
Feature Update: Auto-save with every field change	Learn more	Update 23.0 (Q4 2023)	All Users	Try it out	Enabled	
Feature: Enable using of Service Declaration (Intrastat for Services)	Learn more	Update 23.0 (Q4 2023)	All Users	—	Enabled	

# In 2023 release wave 2 (GA)

**Feature is enabled for all users** (no need to use Feature Management)

## **Feature can be turned off**

- on pages (by the AL developer)
- for a user (using a permission)

## **Users can share an analysis tab with a co-worker**

- get a share link

# In 2023 release wave 2 (GA) (continued...)

## **Improvements to the UI**

- first time you enter analysis mode, analysis menus are open
- users last choice of analysis menus (open/closed) are persisted per analysis tab

## **No limitations on data volume to analyze**

If you analyze more than 100k rows, platform shifts to more efficient way to load data

## **Analyze data from query objects**

# Demo

Analyze Data on list pages



# New Data Analysis UI on queries

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## New Data Analysis UI on queries

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Open query URL

`/?query= <query object id>`

New: *Analysis* toggle button – opens new UI

# Demo

New Data Analysis UI on queries



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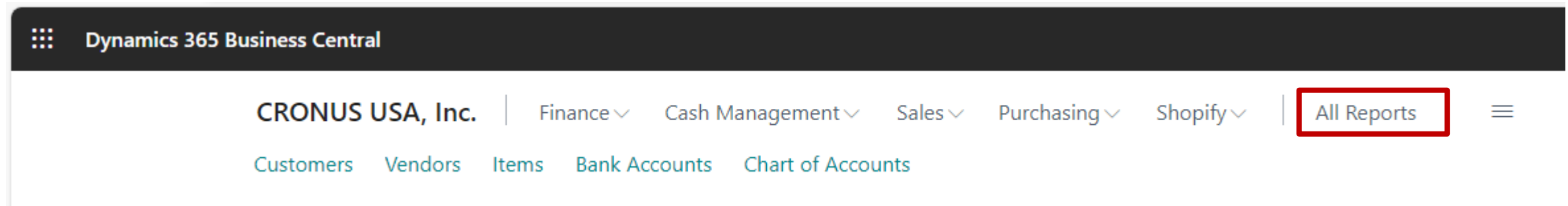
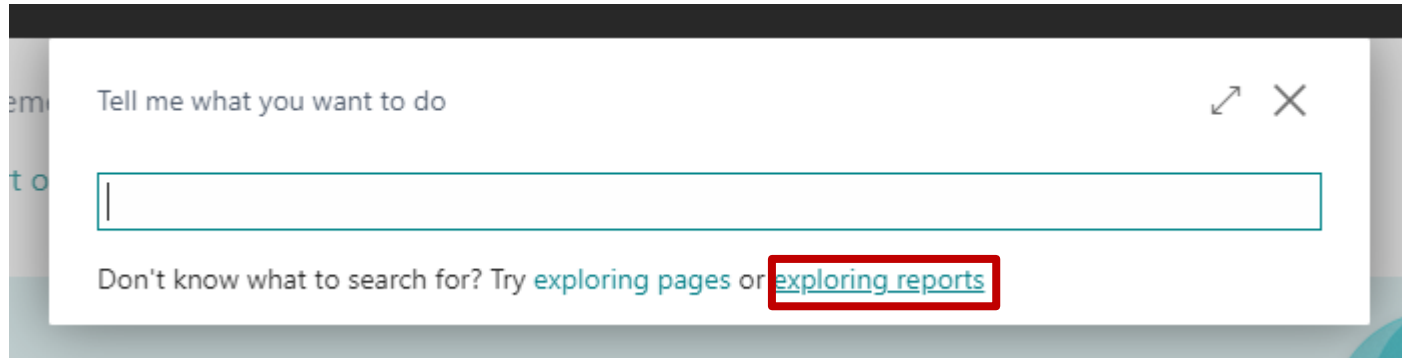
**Queries can be  
discovered by  
users  
(23.1)**

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Show up in Report/Role explorer

Searchable in Tell me

# What are these new links???



# Report Explorer – shows all analytical capabilities

The screenshot displays the Dynamics 365 Business Central interface for 'CRONUS USA, Inc.'. The top navigation bar includes 'All', 'Reports & Analysis', 'Administration', 'Find', and a search icon. The left sidebar shows a 'Company Hub' with a back arrow and a list of functional areas: Manufacturing, Planning (1), Costing (1), Sales And Marketing, and Sales (2). A context menu is open over the 'Reports & Analysis' tab, showing options: 'Find as you type' (checked), 'Expand', 'Expand all' (highlighted), 'Collapse', and 'Collapse all'. A 'Expand all groups' button is also visible. The main content area is divided into three columns: Finance, Human Resources, and Resource. The Finance column lists various reports under categories like General Ledger, Intercompany, Consolidation, and Financial Statement. The Human Resources column lists reports under Employees. The Resource column lists reports under Resources. Each category has an 'Explore' link.

**Dynamics 365 Business Central**

CRONUS USA, Inc. | All | **Reports & Analysis** | Administration | Find | ...

**Company Hub**  
> Explore (empty)

**Manufacturing**  
> Explore

**Planning (1)**  
- Reports (2)  
- Planning Availability  
- Item Substitutions

**Costing (1)**  
- Reports (1)  
- Inventory - Transaction Detail

**Sales And Marketing**  
> Explore

**Sales (2)**  
- Budgets & Analysis (5)  
- Sales Budgets  
- Sales Analysis Reports  
- Sales Analysis by Dimensions  
- Item Dimensions - Detail  
- Item Dimensions - Total  
- Reports (5)  
- Sales Deferral Summary  
- Salespeople/Teams (6)  
- Salesperson Tasks  
- Salesperson Commission  
- Salesperson Opportunities  
- Team Tasks  
- Salesperson Statistics by Inv.

**Find as you type** (checked)  
Expand  
**Expand all**  
Collapse  
Collapse all  
Expand all groups

**Finance**  
> Explore

**General Ledger (4)**  
- Tax (1)  
- Reports (7)  
- Tax Exceptions  
- Tax Register  
- Batch Tax Registration No. Check  
- Tax Statement  
- Tax- VIES Declaration Tax Auth  
- Tax- VIES Declaration Disk...  
- Sales Taxes Collected  
- Intercompany (1)  
- IC Transaction  
- Consolidation (1)  
- G/L Consolidation Eliminations  
- Reports (4)  
- Entries (8)  
- G/L Register  
- Detail Trial Balance  
- Dimensions - Detail  
- Dimensions - Total  
- Dimension Check Value Posting  
- Cross Ref. by Source  
- General Ledger Worksheet  
- Item Charges - Specification  
- Financial Statement (14)  
- Financial Report  
- Trial Balance  
- Trial Balance/Budget  
- Trial Balance/Previous Year  
- Closing Trial Balance  
- Consolidated Trial Balance  
- Consolidated Trial Balance (4)  
- Budget  
- Trial Balance by Period

**Human Resources**  
> Explore

**Employees (1)**  
- Reports (13)  
- Employee Absences by Causes  
- Employee Addresses  
- Employee Alt. Addresses  
- Employee Birthdays  
- Employee Confidential Info.  
- Employee Contracts  
- Employee Labels  
- Employee List  
- Employee Misc. Article Info.  
- Employee Qualifications  
- Employee Relatives  
- Staff Absences  
- Employee Unions

**Resource**  
> Explore

**Resources (1)**  
- Reports (5)  
- Resource Register  
- Resource Statistics  
- Resource Usage  
- Cost Breakdown  
- Resource List

Share an analysis  
definition with a  
co-worker



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## Share an analysis with a co-worker

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Users can get a share link from the analysis tab.

Tip: Links can be used for click-once-install analysis.

General Ledger Entries: All

Search

Analyse

Income statement by Month

	2022 >	2023 >
G/L Account No.	Sum(Amount)	Sum(Amount)
40910 (52)	4,577.06	1,303.77
40140 (214)	-483,040.20	-177,957.30
40110 (16)		29,132.97
	-478,463.14	-147,520.56

- Rename
- Duplicate
- Copy link
- Arrange >
- Delete
- Delete all

Pivot Mode

Search...

Posting Date

☒

 Posting Date Year

Posting Date Quarter

☒

 Posting Date Month

Document Type

Document No.

☒

 G/L Account No.

Description

Department Code

Customergroup Code

Gen. Posting Type

Gen. Bus. Posting Group

Gen. Prod. Posting Group

Row Groups

G/L Account No.

Values

Sum(Amount)

Column Labels

Posting Date Year

Posting Date Month

CRONUS USA, Inc.

Finance ▾

Cash Management ▾

Sales ▾

Purchasing ▾

Shopify ▾

All Reports



General Ledger Entries: All ▾

Search




Analyse

Income statement by Month ▾



	2022 >	2023 >
G/L Account No.	Sum(Amount)	Sum(Amount)
40910 (52)	4,577.06	1,303.77
40140 (214)	-483,040.20	-177,957.30
40110 (16)		29,132.97
	-478,463.14	-147,520.56

✓ Link to 'Income statement by Month'   
copied

<https://businesscentral.dynamics.com/Products>

Copy


Company:



Link to the current company (CRONUS USA, Inc.) ▾









Only recipients with access to this company can use the link.

 Filter values used in the analysis are visible to everyone.

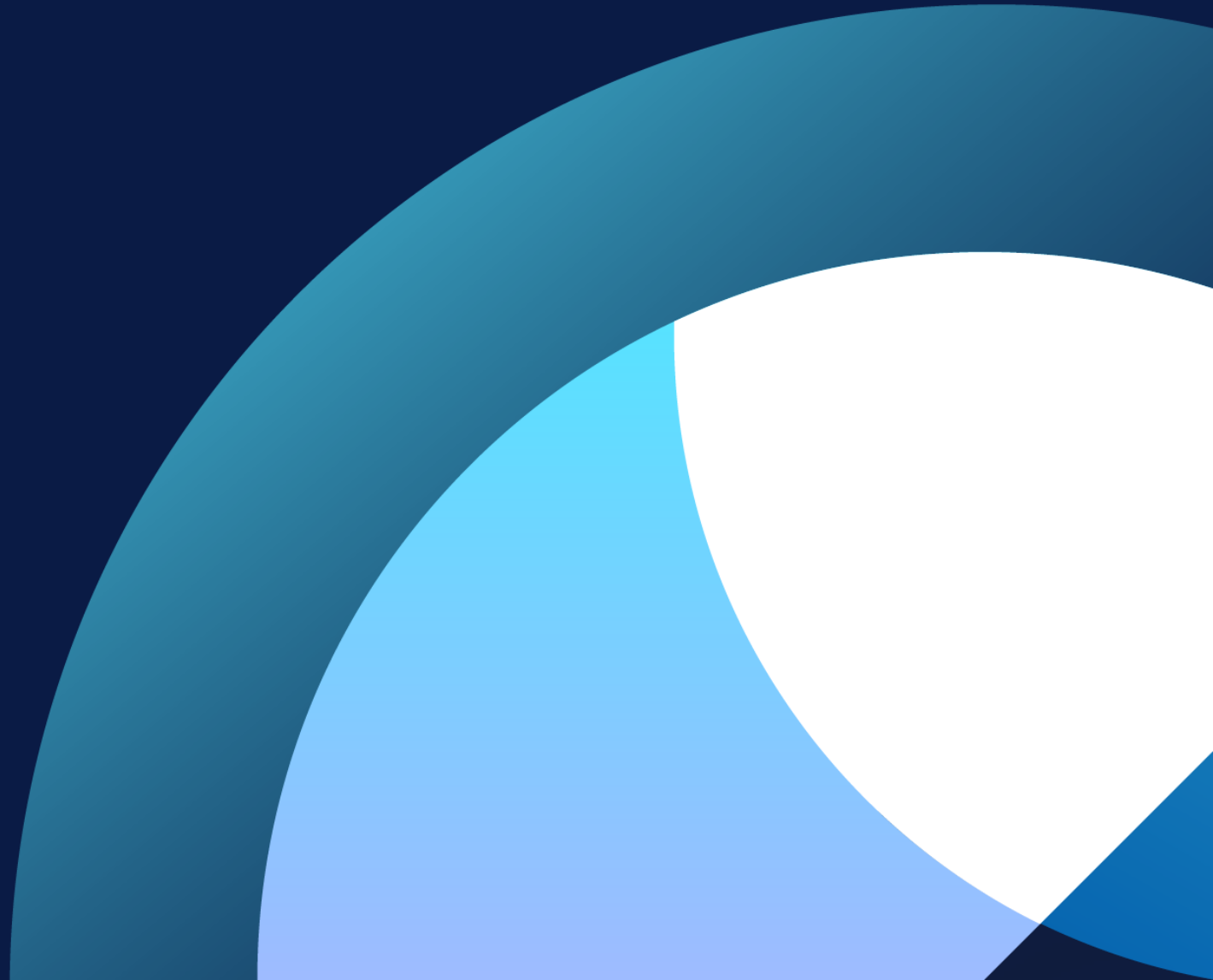
Link in clipboard updated.

 Pivot Mode Search...

-  Columns
-  Analysis Filters
- ☐ Posting Date
  - ☒ Posting Date Year
  - ☐ Posting Date Quarter
  - ☒ Posting Date Month
  - ☐ Document Type
  - ☐ Document No.
  - ☒ G/L Account No.
  - ☐ Description
  - ☐ Department Code
  - ☐ Customergroup Code
  - ☐ Gen. Posting Type
  - ☐ Gen. Bus. Posting Group
  - ☐ Gen. Prod. Posting Group

 Row Groups G/L Account No.  Values Sum(Amount)  Column Labels Posting Date Year  Posting Date Month 

Turn off the feature  
with a new  
permission





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**Administrators  
can turn Data  
Analysis off**

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New system permission  
**DATA ANALYSIS - EXEC**

# New system permission: DATA ANALYSIS - EXEC

Dynamics 365 Business Central

KP

CRONUS USA, Inc.

Finance

Cash Management

Sales

Purchasing

Shopify

All Reports

Permission Sets: All

Search

Analyse

New

Delete

Edit List


Permissions

Copy Permission Set...

Permission Set ↑	Name	Type ↑	Extension Name
<u>DATA ANALYSIS - EXEC</u>	Allow Data Analysis Mode	System	System Application
DATA ARCHIVE - READ	Data Archive - Read	System	Data Archive
DATA ARCHIVE - VIEW	Data Archive - View	System	Data Archive
DATA CLEANUP - ADMIN	DATA CLEANUP - ADMIN	System	System Application
EDIT IN EXCEL - VIEW	Edit in Excel - View	System	System Application
EDIT IN EXCEL-ADMIN	Edit in Excel - Admin	System	System Application
EMAIL - ADMIN	Email - Admin	System	System Application
EXCEL EXPORT ACTION	D365 Excel Export Action	System	System Application
EXPORT REPORT EXCEL	Export Report DataSet to Excel	System	System Application

# Resources



 master [BCTech](#) / [samples](#) / [AnalyzeData](#) /

## How can I use Data Analysis?

Data Analysis is meant for quick fact checking and ad-hoc analysis when you don't want to run a report, if a report for your specific needs does exist, or if you want to quickly iterate to get a good overview on part of your business.

In the following table, you'll find examples of usage scenarios for each main area in the Business Central application.

Area	Scenario	How Data Analysis can help	Data Foundation	Fields to get you started	Built-in report(s)	Try in Business Central (new in 2023w2)
Finance (Accounts Receivables)	See what your customers owe you, maybe broken down into time intervals for when amounts	Open the Customer Ledger Entries list and switch on Analyze. Go to the Columns menu and remove all columns (click the box next to the Search field). Turn on Pivot mode (located directly above the Search field). Now, drag the Customer Name field to the Row Groups area and drag Remaining Amount to the Values area. Finally, find the Due Date Month field and drag it to the Column Labels area. If	<a href="#">Customer Ledger Entries</a>	Customer Name, Due Date, and Remaining Amount.	<a href="#">Aged Accounts Receivables</a> <a href="#">Customer Statement</a>	<a href="#">Click here to create</a> (CTRL+click to open in a new browser)

Click to try scenarios in your environment

# The world is changing (in reporting)

Customer asks, "Can you build me a report?"

**STOP** asking "Sure. How should it be formatted?"

**INSTEAD** ask "What do you need to analyze and for what?"

**THEN** choose the tool of choice



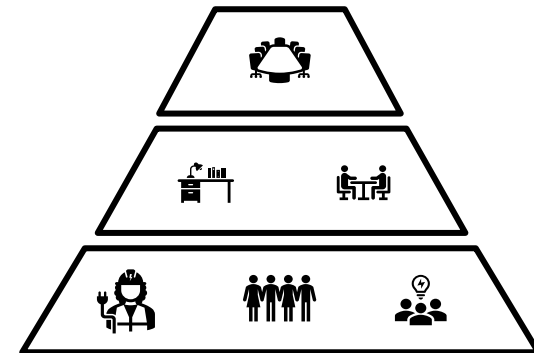
Power BI (and embed), or



Query/List page with Data Analysis, or



AL report with Excel layout



# Go dos

## Understand analytics requirements

Stop developing reports.  
Start supporting analytics needs.

## Learn about Power BI

Business Intelligence (BI) is closely related to ERP.

Power BI is here to stay and is the suggested platform for BI on Business Central data.

## Learn about AL queries

AL queries are not only for performance tuning anymore.

Queries are a powerful tool to implement data mashups for self-service data analysis.

“Build me a report” might just mean “Build me a query.”

## Learn how to design report datasets for Excel layouts

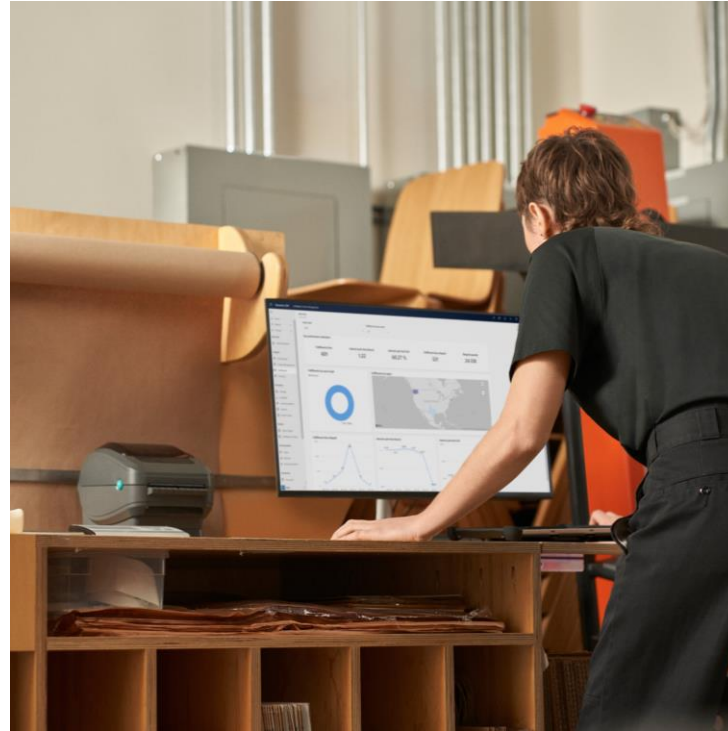
The job as an AL report developer is changing. In many cases, a good report dataset is enough to unblock the customer.

“Build me a report” might just mean “Build me a report dataset.”

# Watch other relevant launch event sessions



New productivity features in the Web client



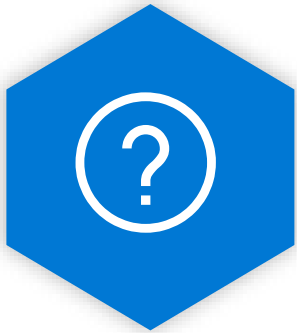
What's new: add existing table fields to optimize your pages.



What's new in Power BI and reporting (for developers)

# General Business Central resources, **learn more!**

Join the  
conversation  
[twitter.com/  
MSDyn365BC](https://twitter.com/MSDyn365BC)



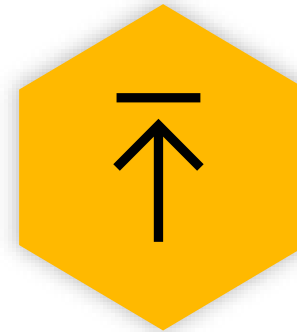
Have a  
question?  
[aka.ms/BCYammer](https://aka.ms/BCYammer)



Submit  
your ideas  
[aka.ms/BCIdeas](https://aka.ms/BCIdeas)



Looking for  
resources?  
[aka.ms/BCAll](https://aka.ms/BCAll)



Join the office  
hours  
[aka.ms/BCOfficeHours](https://aka.ms/BCOfficeHours)





Thank you