



next 365



Transform your Dynamics 365 (F&O) business data into Process Mining event logs

# DYNUG.NO

HØSTKONFERANSE 26. OG 27. NOVEMBER  
**AV BRUKERE - FOR BRUKERE**



# Meet your presenter

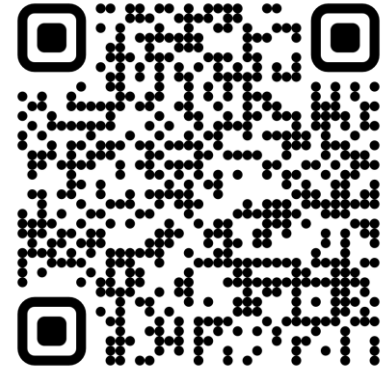
André Arnaud de Calavon

Managing partner | CTO at [Next365 Netherlands](#)

Microsoft MVP Business applications

1996-2001 Navision Financials / Microsoft Dynamics 365 BC

2001-2024 Damgaard Axapta / Microsoft Dynamics 365 F&O / Power Platform



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<https://www.linkedin.com/in/andreadc/>

<https://dynamicspedia.com>

<https://youtube.com/c/dynamicspedia>

<https://twitter.com/dynamicspedia>





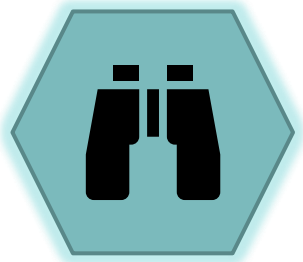
# Agenda

- 1 Introduction
- 2 Microsoft tools Process Mining
- 3 Warehouse material movement
- 4 Event log requirements
- 5 F&O data and events
- 6 “Simple” F&O process
- 7 “Advanced” F&O process

# What is process mining

”**Process mining** is a family of techniques relating the fields of data science and process management to support the analysis of operational processes based on event logs.”

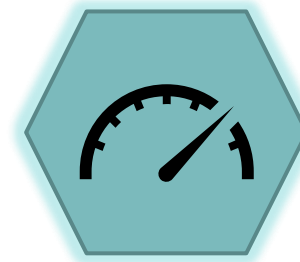
\* Source: Wikipedia



Process  
discovery

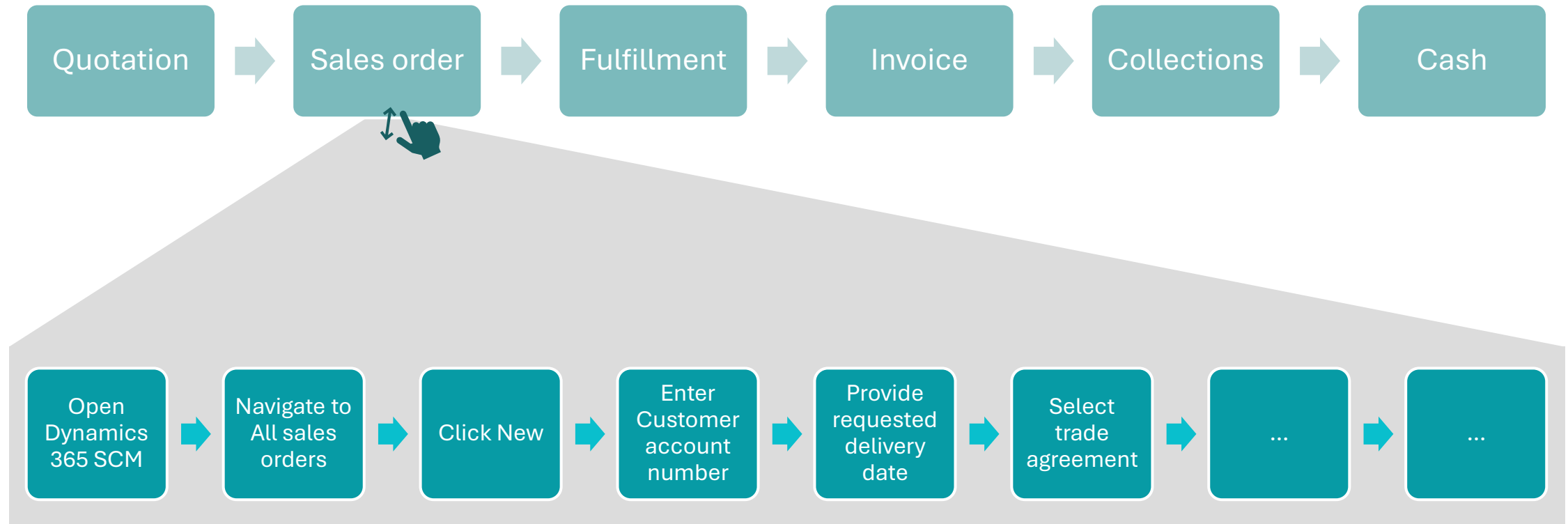


Conformance  
checking



Performance  
analysis

# Process mining versus Task mining



# Process mining tools



Microsoft's web application  
Hosted in Power Automate  
Process and task mining  
KPIs, maps, charts and graphs  
Copilot (preview)

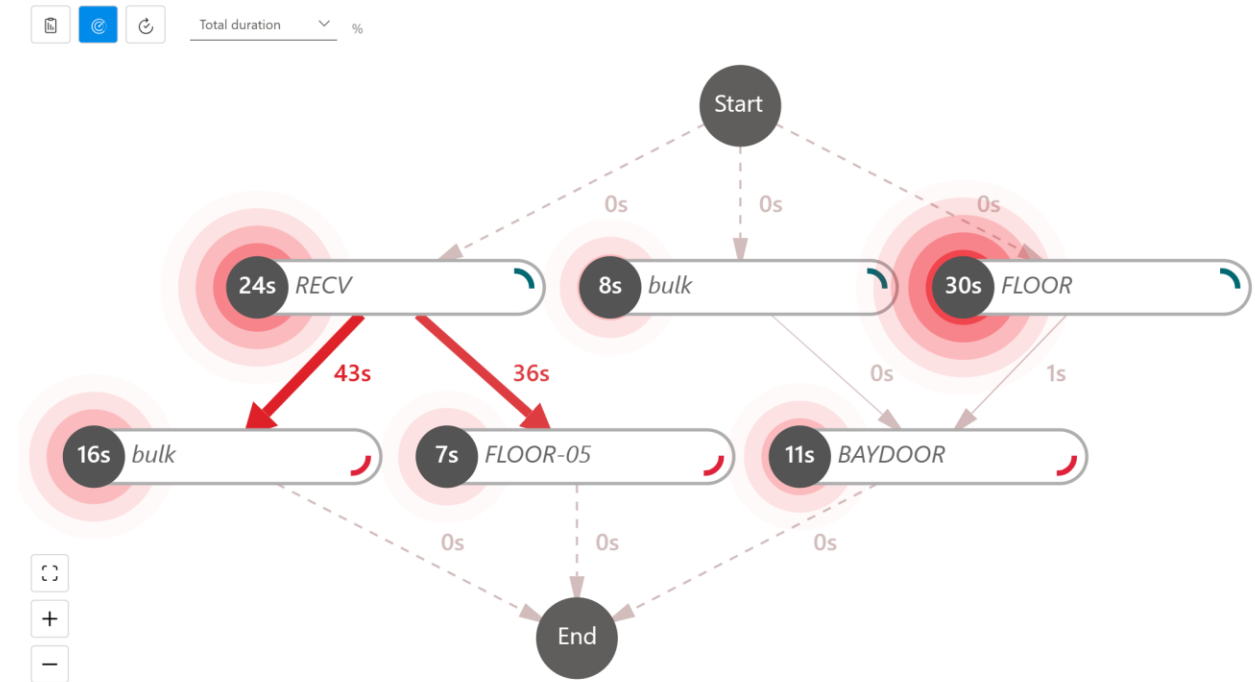


Microsoft's acquisition  
Desktop application  
Includes powerful process mining engine  
Advanced analysis capabilities



# Standard F&O feature Process Mining

- Warehouse material movement analysis
- Standard feature (preview)
- Full integration between F&O and process mining
- Configuration options
- Currently no focus on other processes
- No other templates available





# Demo

Process mining introduction

Warehouse material movement analysis

# Event log requirements

## Process mining data format

- Case ID\*
- Activity\*
- Timestamp
  - Start date/time\*
  - End date/time
- Attribute(s)
  - Resource
  - Location
  - Cost
  - ...
  - ...

```
CaseId,ActivityName,StartTimestamp,EndTimestamp,Barber,Gender,Shampoo,Finish
1,Lobby,2023-11-11 10:05:00.000000,2023-11-11 10:05:00.000000,Barry,Male,,
1,Washing,2023-11-11 10:06:00.000000,2023-11-11 10:09:00.000000,Barry,Male,Dandruff,
1,Cutting,2023-11-11 10:10:00.000000,2023-11-11 10:27:00.000000,Barry,Male,,Wax
1,Payment,2023-11-11 10:28:00.000000,2023-11-11 10:29:00.000000,Barry,Male,,
2,Lobby,2023-11-11 10:09:00.000000,2023-11-11 10:10:00.000000,Emma,Female,,
2,Washing,2023-11-11 10:11:00.000000,2023-11-11 10:18:00.000000,Emma,Female,Regular,
2,Cutting,2023-11-11 10:19:00.000000,2023-11-11 10:49:00.000000,Emma,Female,,Gel
2,Payment,2023-11-11 10:51:00.000000,2023-11-11 10:52:00.000000,Emma,Female,,
3,Lobby,2023-11-11 10:33:00.000000,2023-11-11 10:35:00.000000,Barry,Female,,
3,Washing,2023-11-11 10:36:00.000000,2023-11-11 10:40:00.000000,Barry,Female,Regular,
3,Cutting,2023-11-11 10:41:00.000000,2023-11-11 11:00:00.000000,Barry,Female,,Wax
3,Payment,2023-11-11 11:01:00.000000,2023-11-11 11:03:00.000000,Barry,Female,,
4,Lobby,2023-11-11 10:40:00.000000,2023-11-11 10:52:00.000000,Emma,Male,,
4,Cutting,2023-11-11 10:53:00.000000,2023-11-11 11:10:00.000000,Emma,Male,,Gel
4,Payment,2023-11-11 11:11:00.000000,2023-11-11 11:12:00.000000,Emma,Male,,
```



# Dynamics 365 F&O or BC data for process mining

- Transaction tables ≠ Event log
- Details stored in multiple tables for a single process
- Ingest data with a supported connector
- Data or event-driven
- Level of details
- Case or event-level Attributes
- Performance consideration
- Cost comparison
- Complete or pending processes



# Connectors

Power Automate

Step 1 of 4: Connect to your data

### Choose data source

Select a connector or directly drag a file from your computer.

All categories: File Database Power Platform Azure Online services Other

Excel workbook File	Text/CSV File	XML File	JSON File	Folder File
PDF File	Parquet File	SharePoint folder File	SQL Server database Database	Access Database
SQL Server Analysis Services Database	Oracle database Database	IBM Db2 database Database	MySQL database Database	PostgreSQL database Database
Teradata database Database	SAP HANA database Database	SAP BW Application Server Database	SAP BW Message Server Database	Snowflake Database
Google BigQuery Database	Amazon Redshift Database	Impala Database	Dataflows Power Platform	Dataverse Power Platform
Azure SQL database Azure	Azure Synapse Analytics (S... Azure	Azure Analysis Services Azure	Azure Blobs Azure	Azure Tables Azure
Azure Data Explorer (Kusto) Azure	Azure Data Lake Storage G... Azure	Azure HDInsight Spark Azure	SharePoint Online list Online services	Microsoft Exchange Online Online services
Salesforce objects Online services	Salesforce reports Online services	Google Analytics Online services	Adobe Analytics Online services	Web API Other
Web page Other	SharePoint list Other	OData Other	Spark Other	Odbc Other
Google BigQuery (Az... Database	FHIR Other	Blank table Other	Blank query Other	

Back Next Cancel

#### Help

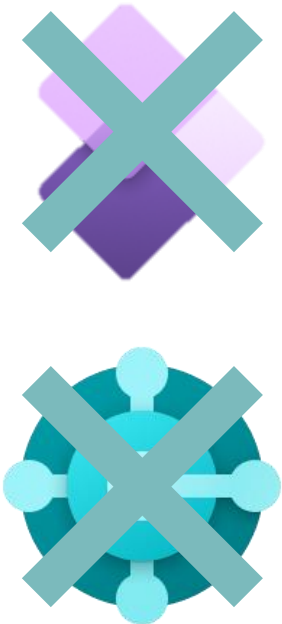
Import your process log data

- Select your data source**  
You can add other data sources when you start transforming data. [Learn more](#)
- Connect the data source**  
Enter any necessary credentials to establish a connection to your data. The source you choose determines what information is needed. [Learn more](#)
- Transform your data (optional)**  
Use Power Query to select and rearrange attributes as necessary. You can also add more data sources. [Learn more](#)
- Map your data to attribute types**  
Map your attributes to the correct attribute types to correctly set up your process map. [Learn more](#)

Attributes needed

Required	Type
Case ID	Numeric/String, maximum 256 characters
Activity	String, maximum 256 characters
Timestamp	Numeric, maximum 256 characters

[Learn more](#)



# Demo

Simple process

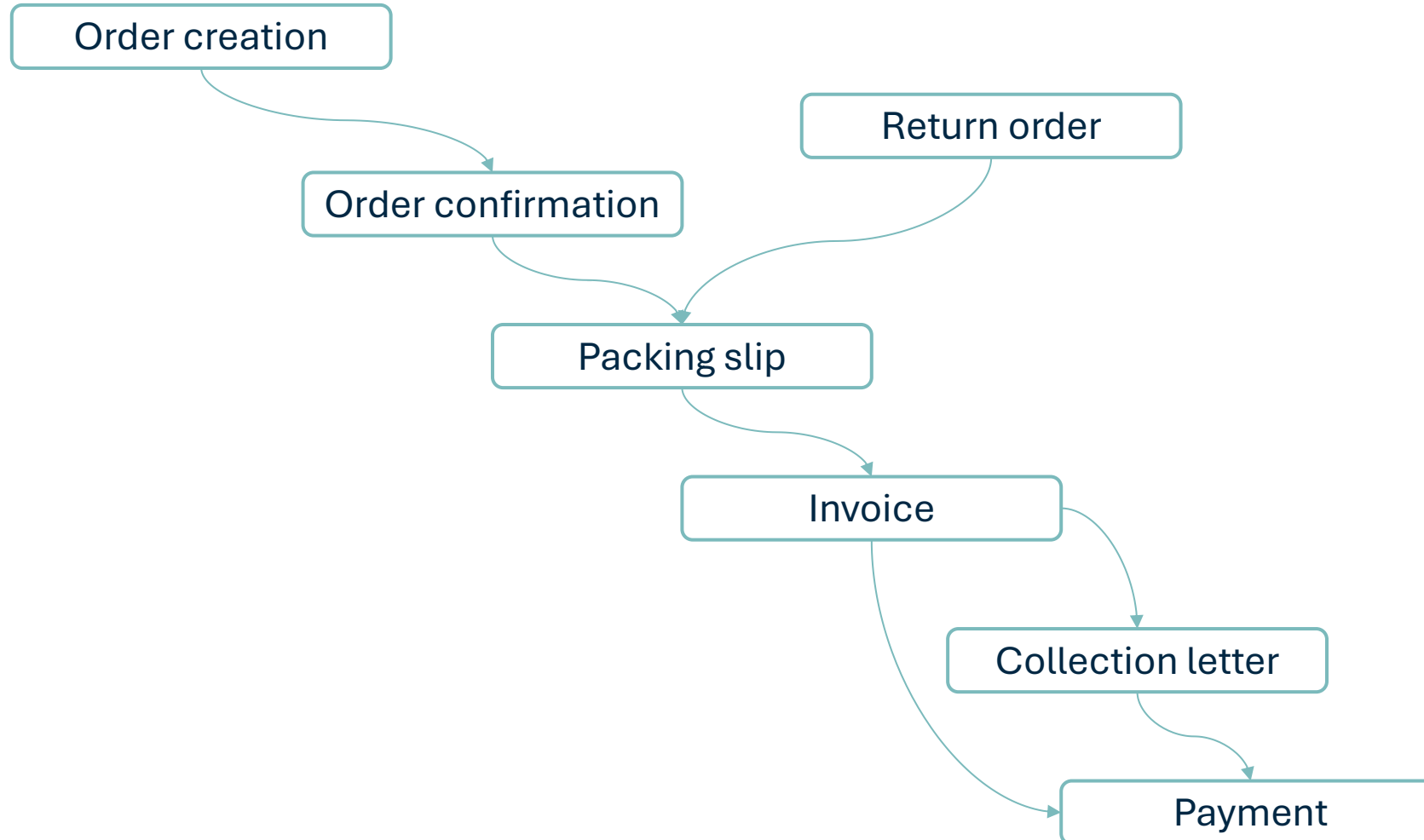
Workflow process mining

[The F&O Twist on Process Mining - Use a data entity to connect a process - Dynamicspedia](#)

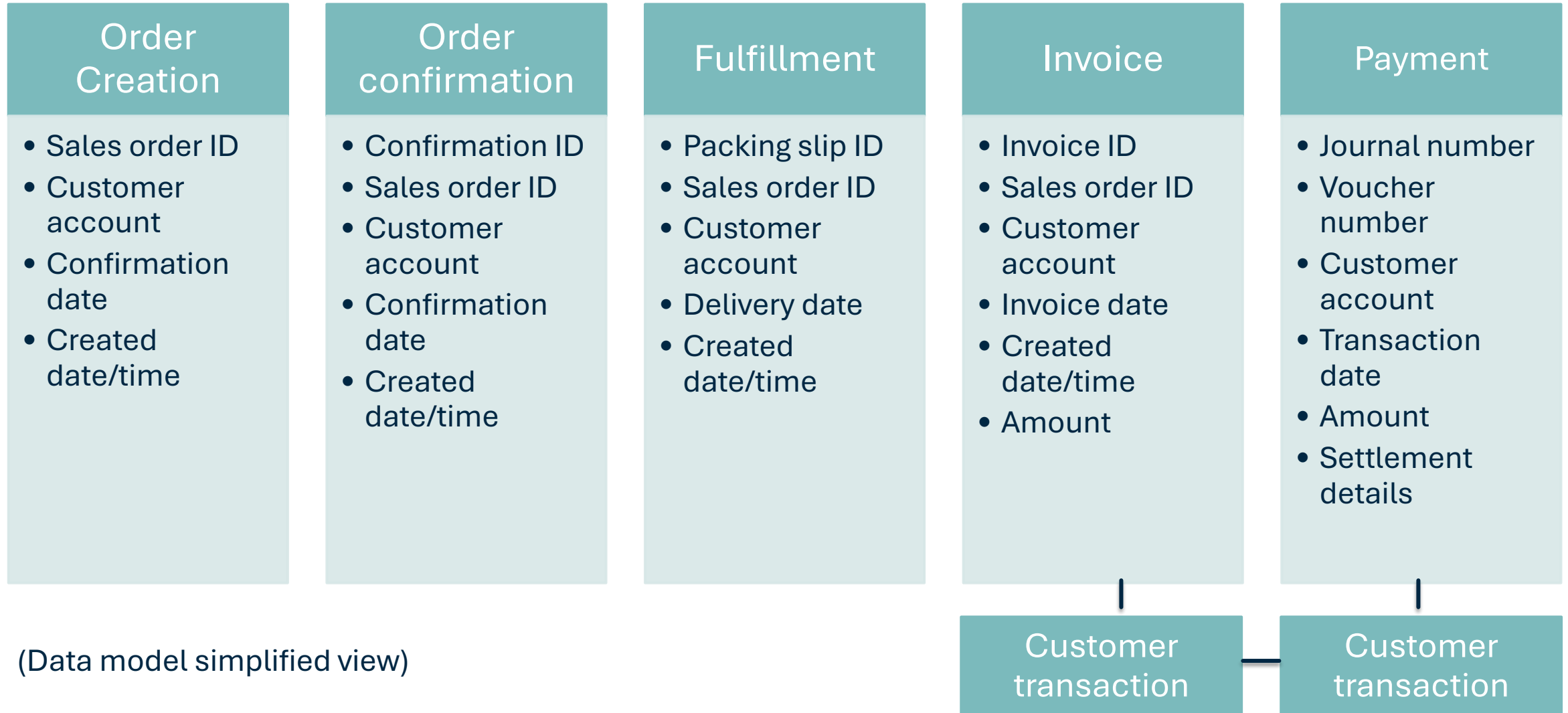




# Order to cash – Process mining



# Order to Cash – Example from F&O



# Order to cash – More complexity

Analysis per item/order line

Multiple deliveries

Multiple invoicea

Summary packing slip

Summary invoice



# Demo

Order to cash example

- Data collection
- SQL view
- SQL endpoint



# More thoughts

## Start and end time

- Order creation
- Last order line created?

## Additional attributes

- Extend current query
- Will become a real complex query

## Procure 2 pay

- F&O tables do not have created date/time fields enabled
- Possible to include workflow approval as part of process analysis

## Customization

- Specific requirements do require a customization



# Links for more information

## Documentation

- [Overview of process mining and task mining in Power Automate - Power Automate | Microsoft Learn](#)
- [Overview of Power Automate Process Mining - Power Automate | Microsoft Learn](#)

## Blogs

- [Process Mining Archives - Dynamicspedia](#)
- [Process Mining | Microsoft BizApps Finance & Controlling \(dynamicsax-fico.com\)](#)

## Videos

- [The F&O twist on Power Automate Process Mining - YouTube](#)



ANY  
QUESTIONS  
?



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