

POWER PLATFORM
BOOTCAMP

Using Power Automate and process mining to analyze business processes

Stefano Demiliani



#GlobalPowerPlatformBootcamp
#GPPB2023

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ABOUT ME



Stefano Demiliani

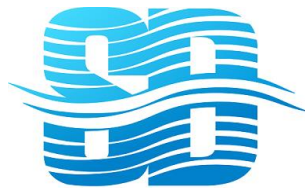
- *Microsoft MVP – Business Applications & Azure*
- **Speaker Bio:** Stefano Demiliani is a Microsoft MVP on Azure and Business Applications, MCT, and a long-time expert on different Microsoft technologies. He's a trainer for Microsoft Italy and Western Europe and a speaker on many international conferences, mainly talking about Azure, serverless architectures and Dynamics 365/Power Platform. He is the author on many top selling IT books on Azure and Microsoft Dynamics.



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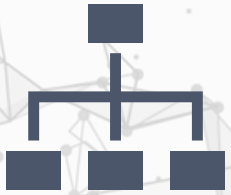




Agenda

- Process Mining overview
- Task Mining overview
- Practical use cases

Process Mining: what is it for?



Every organization has a set of processes they work by.



KPIs need to be defined to create reporting to understand how these processes work.



Process Mining is the convergence of AI-driven intelligence, business data and modern analytics

The players...



What is a process advisor?

Process Advisor is a process mining tool in Power Automate that provides you a deep understanding of which processes are best suitable for automation.

Process advisor offers *process mining* and *task mining* capabilities to do this.



DISCLAIMER

Things you'll see here are currently in PREVIEW and something could change in the future.

Process Mining vs Task Mining

Same goal: improve efficiency!

Process Mining	Task Mining
Process mining is better suited for identifying inefficiencies in organization-wide processes	Task mining is better suited to analyze tasks that are running on the desktop
End-to-end process and sub-process. Works with event log files from your business apps.	Task mining work with user interface logs
Process-oriented	User-oriented
	In this, we can use techniques like data mining algorithms, process modeling, etc.



- Analyze steps to complete business processes and optimize them
- Detect non-compliant processes and/or tasks.
- Discover automation opportunities.
- Compare processes.
- Understand where and why problems occur.



- Understand what employees actually do while performing each task on their desktops.
- Identify the most common actions through user interactions.
- Identify and eliminate unnecessary actions in process tasks.
- Automate tasks that would accelerate processes and reduce human errors.
- Ensure compliance and perform audit.

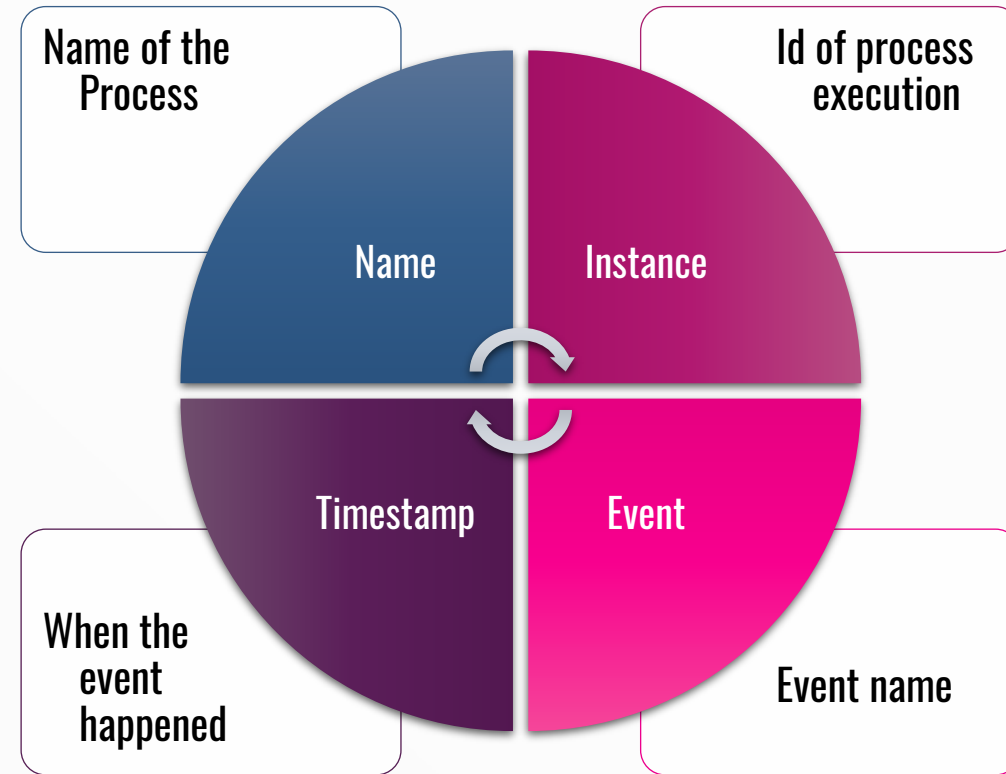
Process Mining

Process mining in process advisor allows you to take the event data from your system of records (ERP, CRM etc) and visualize the processes happening in your organization.

For process mining to analyze the event log, the following fields are necessary:

- **Case ID (caseId when mapping):** Case ID should represent an instance of your process and is often the object that the process acts on (ex. an "order ID" for an order submission process, a "request ID" for an approval process). This ID must be present for all activities in the log.
- **Activity Name (activityName when mapping):** Activities are the steps of your process, and activity names describe each step.
- **Start Timestamp (startTimestamp) and End Timestamp (endTimestamp):** Timestamps indicate the exact time that an event or activity took place. Event logs have only one timestamp. This indicates the time that an event or activity occurred in the system. Activity logs have two timestamps: a start timestamp and an end timestamp. These indicate the start and end of each event or activity.

Stored in Dataverse



Process Mining

Connect to
data



Transform and
map data



Analyze

Process name *

Hello World

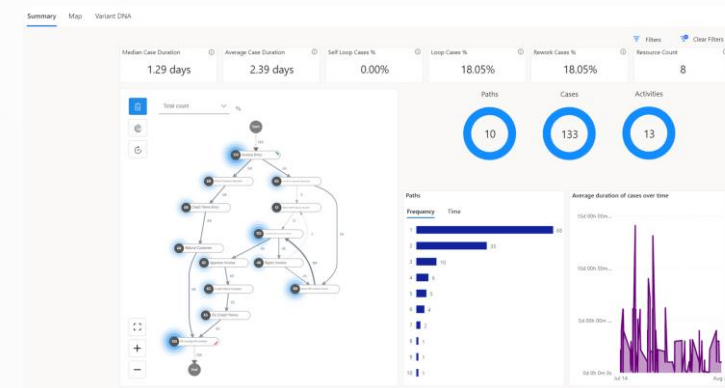
Description

My first process report

How do you want to create this process? *

☒ Data (preview) ☐ Recordings

Attribute Name	Attribute Type	Attribute Data Type
ActivityName	Activity	Text
CaseId	Case ID	Whole Number
EndTimestamp	Event End	Date/Time
InvoiceValue	Financial per Event	Whole Number
Location	Event Level Attribute	Text
Resource	Resource	Text
Role	Event Level Attribute	Text
StartTimestamp	Event Start	Date/Time
VendorID	Event Level Attribute	Text




DEMO: PROCESS MINING

Task Mining

Task Mining is the technology that allows businesses to capture user data and use that data to analyze how employees are getting their work done, and how their performance can be improved.


Create a new process Premium



Data (preview)

Discover inefficiencies across your organization's processes.

- Connect and upload data from a variety of sources such as Excel or Dataverse.
- Gain insights from data by analyzing automatically generated Process Map.
- Optimize/automate common processes such as Order to Cash or Supply Chain.



Recordings

Discover inefficiencies of your desktop activities

- Record the actions required to complete a task (such as data entry or approval tasks).
- Gain insights from recordings by analyzing automatically generated Process Maps.
- Use these insights and guided recommendations to begin automating.

Set up a process using recordings or imported data.


[Learn more](#)


Process name *

FinancialProcess

Description

How do you want to create this process? *

Data (preview)

Recordings

Need data? [Download Microsoft's sample data](#)

Create

Cancel

Task Mining



This process was created

Next, add your recording or share it so others can add their own.

Add a recording

Open process details

Recorder

Record Reset

Recorded actions

Press on UI element: Google Chrome - 1 running window on screen: Quick Launch Bar

Press button in window

Press on UI element: Google Chrome - 1 running window on screen: Quick Launch Bar

Click element in window

Left click on UI element: Pane on screen: Pane 'Zimbra: Inbox - Google Chrome'

Select menu item in window

Select option on UI element: Power Automate - 3 running windows on screen: Quick Launch Bar

Click element in window

Left button down on UI element: List Item 'Recorder' on screen: List 'Task Switcher'

+ Comment

Help Finish Cancel

+ Add activity Recording Details Delete all activities Save and analyze

We have saved your recording. Your analytics will be ready in a moment. You may also close the recording and return to the process page.

Process Advisor > Processes > testt > Recordings > 5/21/2022, 8:37 PM

Status: Not analyzed

Timestamp	Application	Name	Description
Contoso Invoicing Auto created			
08:40:11 PM	LegacyInvoicingApp	Populate text field in wind...	Populate text box Edit 'TextBox' with
08:40:13 PM	LegacyInvoicingApp	Click UI element in window	Click on UI element Image 'Image'
08:40:15 PM	LegacyInvoicingApp	Press button in window	Press button Button 'Minimize'
08:40:16 PM	---	Press button in window	Press button Microsoft Edge - 1 running window
08:40:17 PM	---	Press button in window	Press button Microsoft Edge - 1 running window
08:40:19 PM	---	Press button in window	Press button Google Chrome - 1 running window

Process

Application

```
graph TD; Start((Start)) -- "1 (100%)" --> Search(Search 19 seconds); Search -- "1 (100%)" --> Invoicing(Contoso Invoicing 9 seconds); Invoicing -- "1 (100%)" --> End((End))
```

1 Recordings

1 Process variants

Start on 5/21

Variants by frequency

Variants by time

Activity by average time in sec



We auto grouped and named your activities for you. You can edit the name and grouping. [Learn more](#)

DEMO: TASK MINING

Azure Templates for Process Mining

Set of templates for analyzing your cloud tasks and processes.

Azure DevOps (work tracking) template analyzes the execution and handling of tracked Azure DevOps (ADO) work items to help you maximize your development processes and manage dependencies.

Azure DevOps (pipelines) template analyzes the execution and handling of tracked pipelines and boards to help you maximize your development processes and manage dependencies.

Logic Apps (standard plan) template analyzes the execution of your Logic Apps to help you maximize your automated processes and manage dependencies.

Logic Apps (consumption plan) template analyzes the execution of your Logic Apps to help you identify opportunities and optimize your Logic Apps (consumption plan) usage.

Durable Functions template analyzes the execution of your Durable Functions to help you identify opportunities and optimize states, checkpoints, and restarts.



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Azure Templates for Process Mining

Start with a popular template

Top picks

Azure

Finance & Operations

Supply Chain

Power Platform



Azure DevOps (work tracking)

Track your work item processes within Azure DevOps.



Azure DevOps (pipelines)

Quickly gain insights on your CI/CD processes.



Logic Apps (standard plan)

Understand success rate and processes executed through Logic Apps.



Durable Functions

Find out what is running behind the scenes of your stateful serverless compute environment.



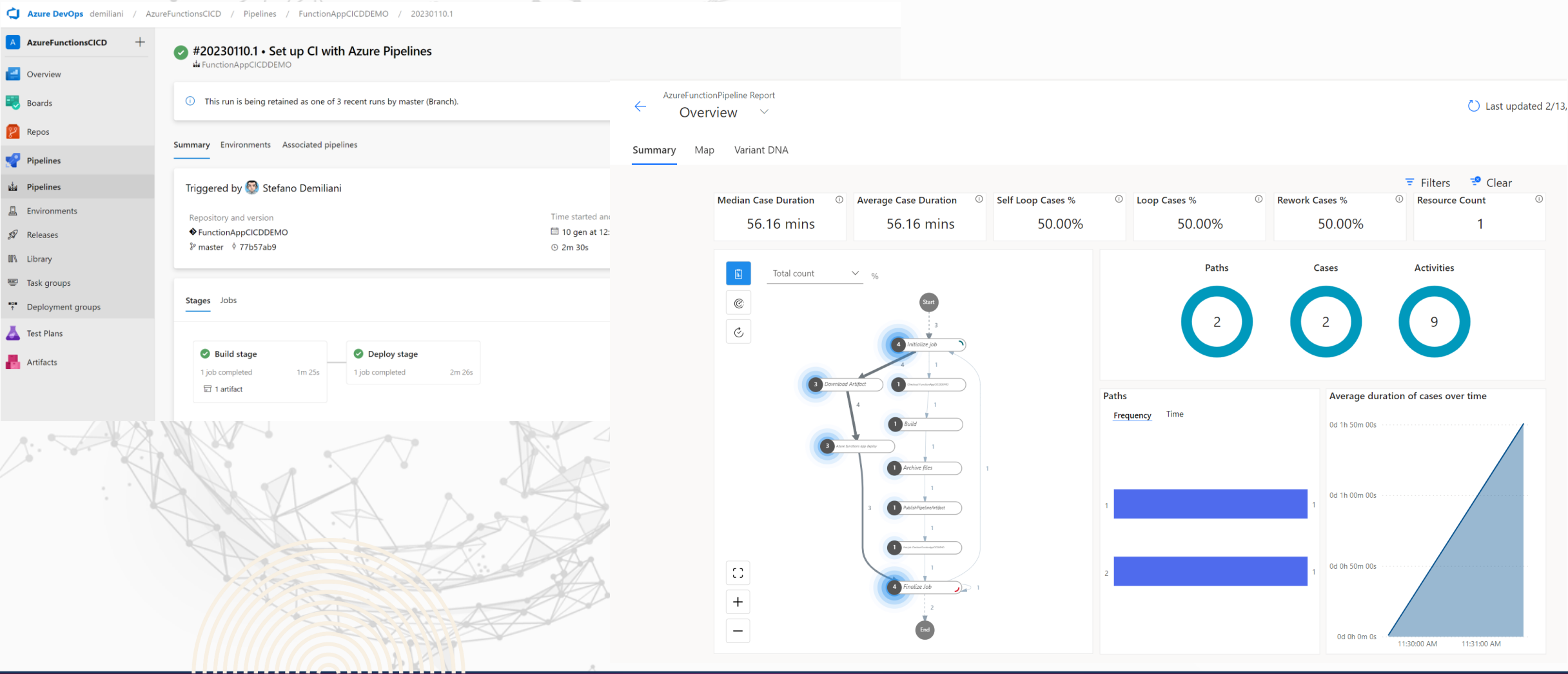
Logic Apps (consumption plan)

Understand what is happening with your logic app consumption.

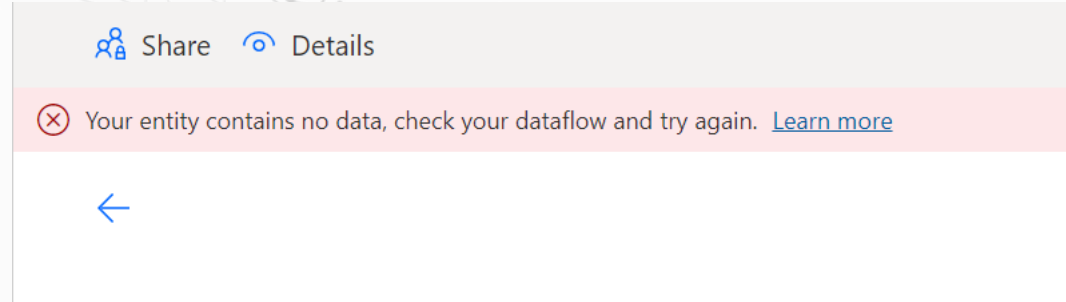


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Azure Templates for Process Mining



Azure Templates for Process Mining



Edit the template and setup your query

Power Platform Templates for Process Mining

Set of templates to identify automation opportunities and address performance and compliance opportunities in your flows.

- **Desktop flows template** analyzes the run history of flows that you create with RPA in Power Automate
- **Power Virtual Agents template** analyzes your bots to help you better understand your users' journey and maximize the bots' effectiveness.
- **Power Apps insights template** enables you to visualize the actions and success of your Power Apps.

<https://learn.microsoft.com/en-us/power-automate/process-mining-templates>



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RECAP

PROCESS MINING

Useful to analyze organization-wide business processes

TEMPLATES

You can analyze development processes, cloud workflows, Power Platform usage

TASK MINING

Useful to analyze user-centric processes

ADD YOUR OWN DATA

You can create your own set of data to analyze for your custom processes

Any Questions?



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Please fill out the
survey!



<https://aka.ms/gppb23mifedback>



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THANK YOU



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