

The Bookmark Killer

- Mastering When and How to Use Bookmarks in Power BI Reports



Data Saturday - Denmark

David Kofod Hanna

Sponsors



David Kofod Hanna



Senior Advisor, Data Storytelling @ twoday

+200 courses as Academy Trainer and a decade as consultant
Certified Tabular Editor 3 Trainer, DP-600, PL-300, CPUX-F



Passionate about guiding self-service Power BI

developers for more enterprise manageable concepts in a consumable and practical way



Born on beautiful “Sunshine island”: Bornholm

Lives in Silkeborg with wife and 3 kids
Love football and running half-marathons



twoday

How many have created
bookmarks in Power BI Desktop?



How many have **created**
+20 bookmarks in a single
Power BI **Report**?



How many have **received** a report with
+20 bookmarks?



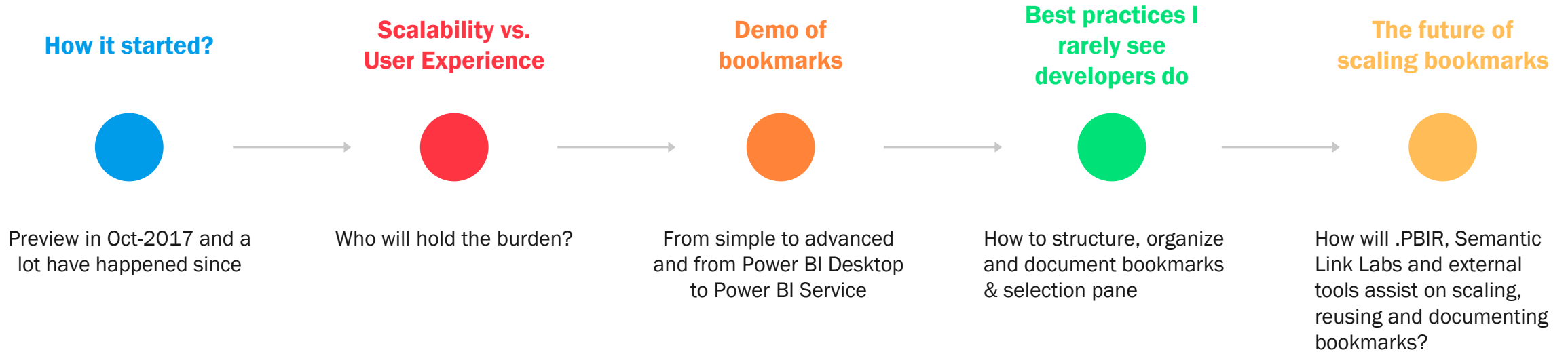
I CREATED 175 BOOKMARKS



AND NOW I'M LEAVING THE COMPANY...

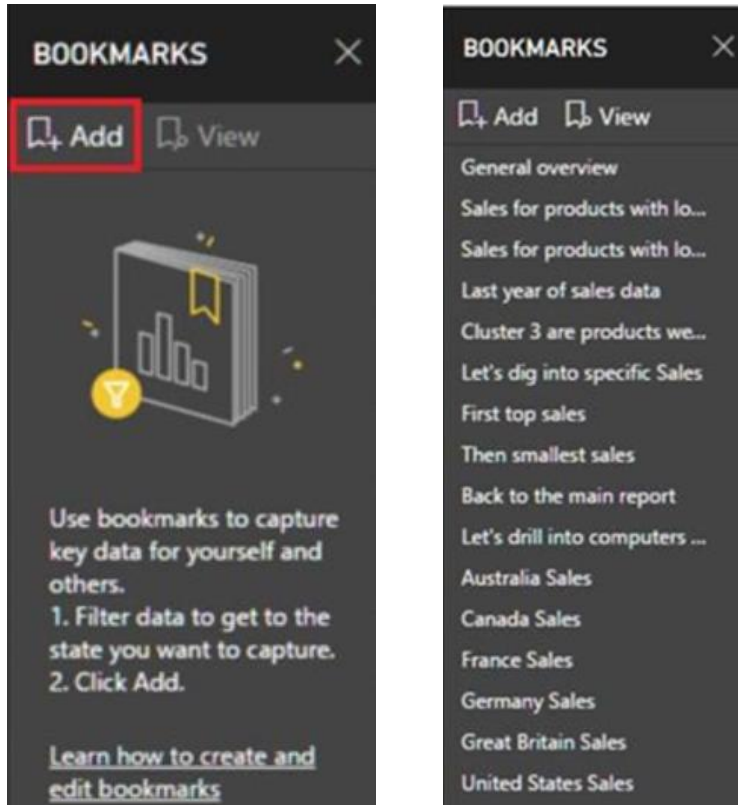
The Bookmark Killer:

Mastering When and How to Use Bookmarks in Power BI Reports



How it started?

Preview in October 2017 and GA in March 2018



Power BI Desktop October Feature Summary



Amanda Cofsky
Program Manager

October 5, 2017

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This month we are very excited to share one of our most anticipated features from the Microsoft Data Insights Summit: Bookmarking. Combining bookmarking with some of our other recently released features such as drillthrough and what it gives you powerful storytelling capabilities and lets you create highly interactive reports. We also have some more visual improvements and a big update to our quick measures feature this month.

[Download Power BI Desktop](#)

Here's the complete list of October updates:

Reporting

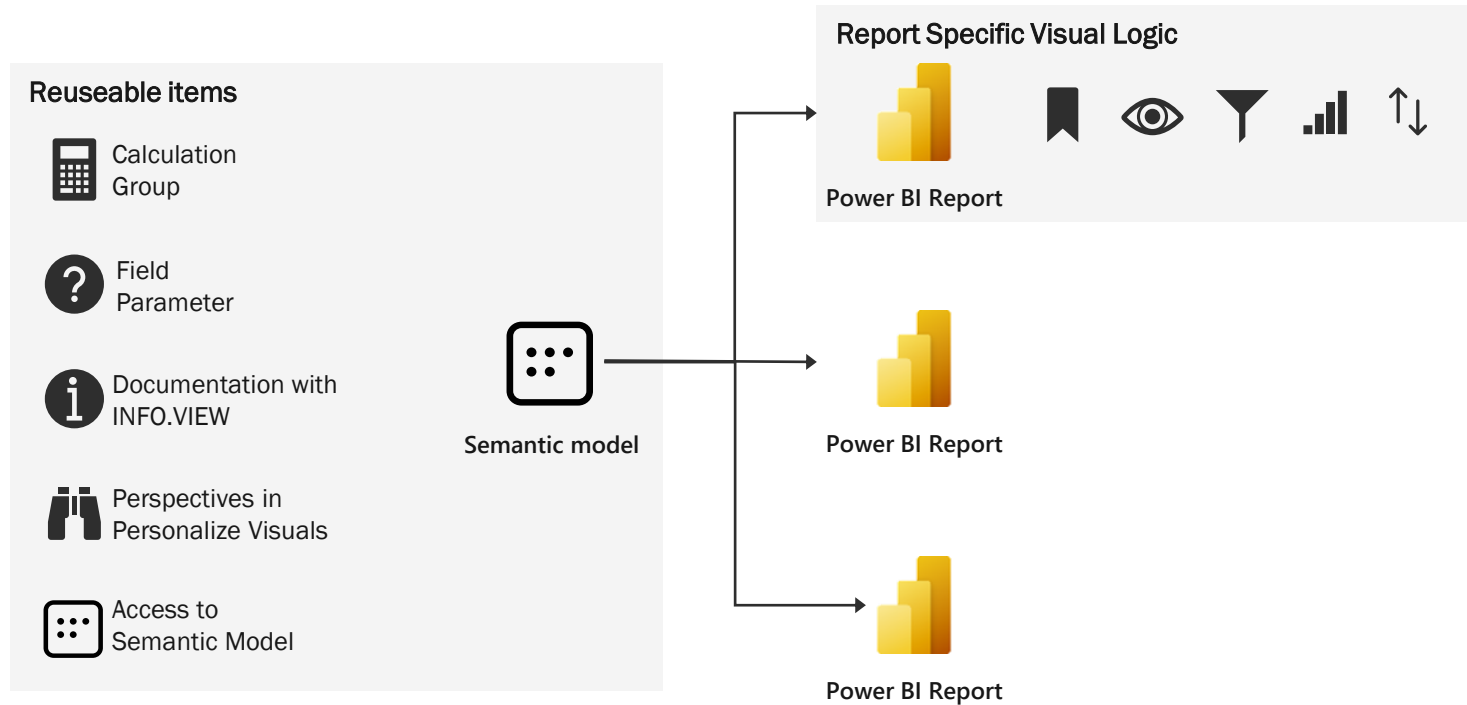
- Bookmarking (preview)
- Selection pane and visual display controls
- Bookmark links for shapes and images (preview)
- Spotlight
- Scatter & bubble markers
- Increase the number of data points shown in scatter charts

“Be kind to your
future self”

... but my main focus is to enhance the user experience for the end-users consuming the report, which is why I am willing to carry the "**report developer burden**"

- Scalability vs. User Experience

... because let's face it, it's difficult to reuse and scale bookmarks



... BUT we still need Bookmarks – but let's see how we can determine how and when



Miguel Myers • 1st
Principal Program Manager, Power BI @ Microsoft
11h • 🌐

Hello, community,

As we enter the new year, I am committed to reviewing bookmarks and defining a plan for future improvements. I would appreciate your participation in two simple tasks:

1. Comment below on the most common things you use bookmarks for and the most painful points in those scenarios.
2. Re-post and share this message to reach as many people as possible. Your participation will help shape the future of Power BI.

BOOKMARKS

Customer Feedback



👤👥 You and 290 others

112 comments · 77 reposts

https://www.linkedin.com/posts/miguelmyers_hello-community-as-we-enter-the-new-year-activity-7285028955697348610-nP7d/

Demo

Use bookmarks wisely

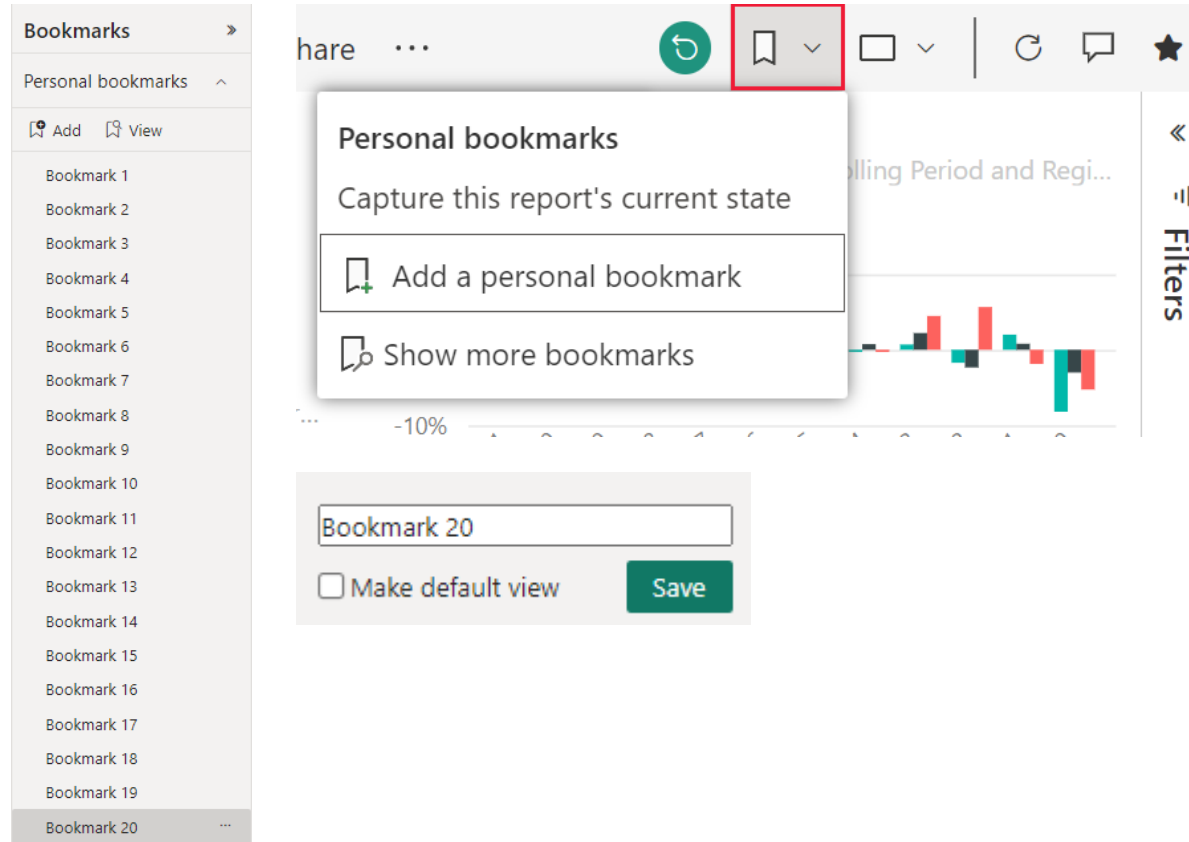
Especially for enterprise and business critical reporting – and especially if developed by others and a less experienced need to maintain it – **remember Total Cost of Ownership**

Need	Recommend use of Bookmarks?	Consider *	Comment
Reset slicers	✗		Action type reset slicer or in PBI Service “Reset to Default”
Reset slicers with predefined selections	?		Consider users can utilize personal bookmarks and above
Documentation info	?	⚠	INFO.VIEW documentation vs. guided tour on UI and features
Switch measures	✗		Field Parameters
Switch attributes	✗		Field Parameters
Switch sort order	?		Manual sort by on visual, sort by measure or Calculation Groups
Soft RLS on KPI's field parameter	?	⚠	Added TCO when adding RLS – remember test and validation
Slideshow	✗		Use PowerPoint Integration and upcoming annotations
Go to a page with a predefined filter	?		Consider drill-through
Slicer Panel	😍	⚠	Only way to create this of expand/collapse is via bookmarks
Switch visualizations	😍		Way better than personalize visuals, but what about Explore visual or Power BI
Save slicer and filter selection	😍		Personal Bookmarks in Power BI Service, but beware of avoiding removing report from app or unpublishing app

⚠ *Consider

- Enterprise vs. Self-Service
- Expected lifetime of report (Ad-hoc vs. business critical)
- Are you delivering a data product with storytelling?
- Number of report consumers
- Number of report developers
- Competency of report developer
- Competency of report consumers
- Competency of maintainer of the report i.e. part of project handover
- New feature requests or changes in data/report?
- Internal or external shared to customers
- Embedding / SaaS solution / Power BI Service

Personal Bookmarks in Power BI Service



⚠ Warning

When you unpublish an app or remove a report and update the app, app report consumers **lose their personal bookmarks** – even if you republish the app later or add the report back into the app



Peek a boo

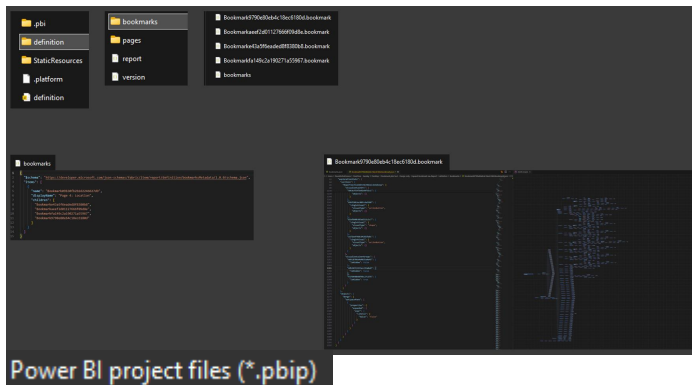
?

Can you duplicate a report page
where **bookmarks** are copied as
well...

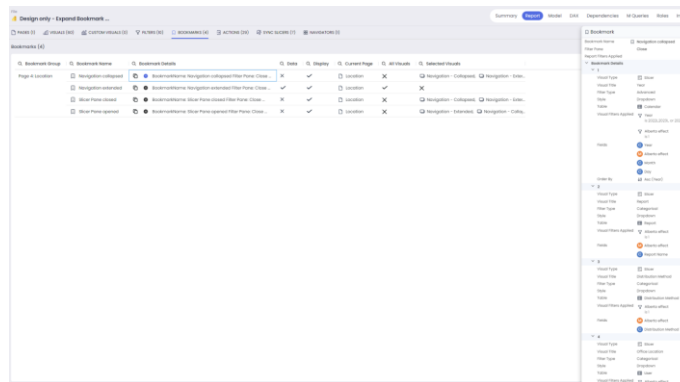
The future of scaling and documenting bookmarks



.PBIR



Powerops



Semantic Link Labs in Fabric

```
1 #Shows a list of all bookmarks in the report.
2 rpt.list_bookmarks()
```

[9] ✓ - Command executed in 10 sec 143 ms by DAHA Admin David Kofod Hanna on 4:53:13 PM, 10/22/24 PySpark (Python) ✓

	File Path	Bookmark Name	Bookmark Display Name	Page Name	Page Display Name	Visual Name	Visual Hidden
0	definition/bookmarks/06eb5dbc17a2a766628c.book...	06eb5dbc17a2a766628c	Q	#7a3305010160561ec0	Report Analysis	12a8f40204adeeb3a41	False
1	definition/bookmarks/06eb5dbc17a2a766628c.book...	06eb5dbc17a2a766628c	Q	#7a3305010160561ec0	Report Analysis	cb86664ed2b0800581b	False
2	definition/bookmarks/b6ef55a598623a0d09210.book...	b6ef55a598623a0d09210	M	#7a3305010160561ec0	Report Analysis	12a8f40204adeeb3a41	False
3	definition/bookmarks/b6ef55a598623a0d09210.book...	b6ef55a598623a0d09210	M	#7a3305010160561ec0	Report Analysis	cb86664ed2b0800581b	False

The future of scaling and documenting bookmarks



.PBIR

Power BI project files (*.pbip)

.pbi

definition

StaticResources

.platform

definition

bookmarks

pages

report

version

Bookmark9790e80eb4c18ec6180d.bookmark

Bookmarkaeef2d01127666f09d8e.bookmark

Bookmark43a3f6eade8f8380b8.bookmark

Bookmarkfa149c2a190271a55967.bookmark

bookmarks

bookmarks

```
1 {
2   "schema": "https://developer.microsoft.com/json-schemas/fabric/item/report/definition/bookmarksMetadata/1.0.0/schema.json",
3   "items": [
4     {
5       "name": "Bookmark9790e80eb4c18ec6180d",
6       "displayName": "Page 4: Location",
7       "children": [
8         "Bookmarkaeef2d01127666f09d8e",
9         "Bookmark43a3f6eade8f8380b8",
10        "Bookmarkfa149c2a190271a55967",
11        "Bookmark9790e80eb4c18ec6180d"
12      ]
13    }
14  ]
15 }
```

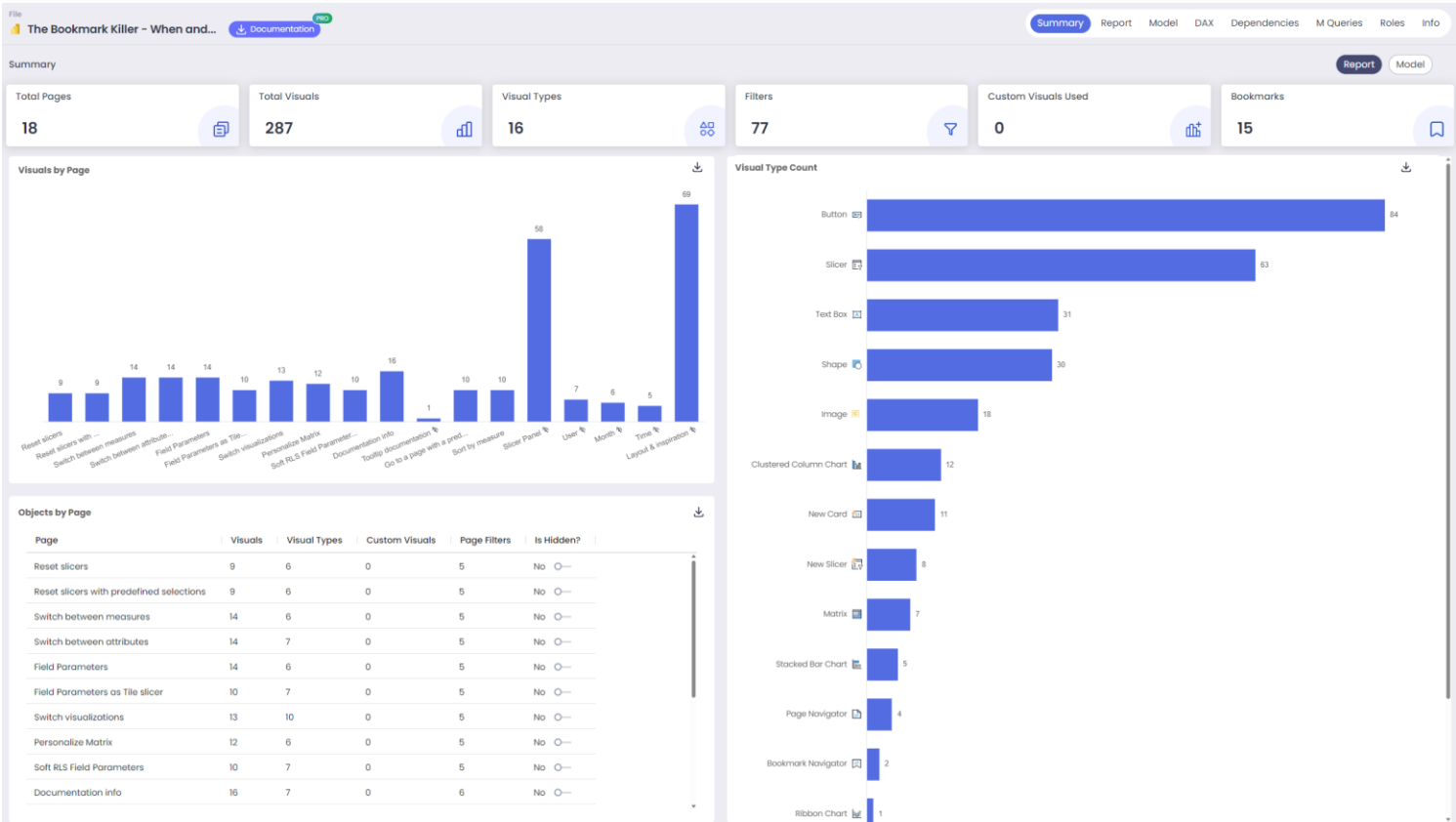
Bookmark9790e80eb4c18ec6180d.bookmark

```
1 {
2   "name": "Bookmark9790e80eb4c18ec6180d",
3   "displayName": "Page 4: Location",
4   "children": [
5     "Bookmarkaeef2d01127666f09d8e",
6     "Bookmark43a3f6eade8f8380b8",
7     "Bookmarkfa149c2a190271a55967",
8     "Bookmark9790e80eb4c18ec6180d"
9   ]
10 }
11
12 {
13   "name": "Bookmarkaeef2d01127666f09d8e",
14   "displayName": "Page 4: Location",
15   "children": [
16     "Bookmark43a3f6eade8f8380b8",
17     "Bookmarkfa149c2a190271a55967",
18     "Bookmark9790e80eb4c18ec6180d"
19   ]
20 }
21
22 {
23   "name": "Bookmark43a3f6eade8f8380b8",
24   "displayName": "Page 4: Location",
25   "children": [
26     "Bookmarkfa149c2a190271a55967",
27     "Bookmark9790e80eb4c18ec6180d"
28   ]
29 }
30
31 {
32   "name": "Bookmarkfa149c2a190271a55967",
33   "displayName": "Page 4: Location",
34   "children": [
35     "Bookmark9790e80eb4c18ec6180d"
36   ]
37 }
38
39 {
40   "name": "Bookmark9790e80eb4c18ec6180d",
41   "displayName": "Page 4: Location",
42   "children": [
43     "Bookmark9790e80eb4c18ec6180d"
44   ]
45 }
```

The future of scaling and documenting bookmarks



Powerops



The future of scaling and documenting bookmarks



There you are!



Powerops

Bookmarks (15)							
Q Bookmark Group	Q Bookmark Name	Q Bookmark Details	Q Data	Q Display	Q Current Page	Q All Visuals	Q Selected Visuals
Switch attributes	Y-M	BookmarkName: Y-M Filter Pane: Close ...	✓	✓	Switch between attributes	✗	✓
	Y-M-D	BookmarkName: Y-M-D Filter Pane: Close ...	✓	✓	Switch between attributes	✗	✓
Switch visualizations	Column	BookmarkName: Column Filter Pane: Close ...	✗	✓	Switch visualizations	✗	✓
	Matrix	BookmarkName: Matrix Filter Pane: Close ...	✗	✓	Switch visualizations	✗	✓
	Ribbon	BookmarkName: Ribbon Filter Pane: Close ...	✗	✓	Switch visualizations	✗	✓
P4: Location: Navigation & slicer pane	Navigation collapsed	BookmarkName: Navigation collapsed Filter Pane: Close ...	✗	✓	Slicer Panel	✗	✓
	Navigation extended	BookmarkName: Navigation extended Filter Pane: Close ...	✗	✓	Slicer Panel	✓	✗
	Slicer Pane closed	BookmarkName: Slicer Pane closed Filter Pane: Close ...	✗	✓	Slicer Panel	✗	✓
	Slicer Pane opened	BookmarkName: Slicer Pane opened Filter Pane: Close ...	✗	✓	Slicer Panel	✗	✓
	Reset slicers	BookmarkName: Reset slicers Filter Pane: Close ...	✓	✓	Reset slicers	✓	✗
	Reset slicers with predefined selections	BookmarkName: Reset slicers with predefined selections Fil...	✓	✓	Reset slicers with predefined selections	✗	✓
	Switch measures - report views	BookmarkName: Switch measures - report views Filter Pan...	✗	✓	Switch between measures	✗	✓
	Switch measures - UER	BookmarkName: Switch measures - UER Filter Pane: Close ...	✗	✓	Switch between measures	✗	✓
	Documentation hidden	BookmarkName: Documentation hidden Filter Pane: Open ...	✓	✓	Documentation info	✗	✓
	Documentation info	BookmarkName: Documentation info Filter Pane: Open ...	✓	✓	Documentation info	✗	✓

Bookmark	
Bookmark Name	Column
Filter Pane	Close
Report Filters Applied	
Bookmark Details	
1	
Visual Type	Text Box
Visual Title	Info text on page
2	
Visual Type	Slicer
Visual Title	Distribution Method
Filter Type	Categorical
Style	Dropdown
Table	Distribution Method
Visual Filters Applied	Alberto effect is 1
Fields	Alberto effect
	Distribution Method
3	
Visual Type	Slicer
Visual Title	Office Location
Filter Type	Categorical
Style	Dropdown
Table	User
Visual Filters Applied	Alberto effect is 1
Fields	Alberto effect
	Office Location
4	
Visual Type	Button
Visual Title	
5	

The future of scaling and documenting bookmarks



Semantic Link Labs in Fabric

list_bookmarks()
list_custom_visuals()
list_page_filters
list_pages()
list_report_filters
list_report_level_measures()
list_semantic_model_objects()
list_visual_filters
list_visual_interactions()
list_visual_objects
list_visuals()

```
1 #Shows a list of all bookmarks in the report.  
2 rpt.list_bookmarks()
```

[9] ✓ - Command executed in 10 sec 143 ms by DAHA Admin David Kofod Hanna on 4:53:13 PM, 10/22/24 PySpark (Python) ▾

	File Path	Bookmark Name	Bookmark Display Name	Page Name	Page Display Name	Visual Name	Visual Hidden
0	definition/bookmarks/06eb5dbc17a2a766628c.book...	06eb5dbc17a2a766628c	Q	ff7a3305010160561ec0	Report Analysis	12a8fc4204adebeb8a41	False
1	definition/bookmarks/06eb5dbc17a2a766628c.book...	06eb5dbc17a2a766628c	Q	ff7a3305010160561ec0	Report Analysis	cb866d6ad2b80080581b	False
2	definition/bookmarks/b6e655a598623dd09210.book...	b6e655a598623dd09210	M	ff7a3305010160561ec0	Report Analysis	12a8fc4204adebeb8a41	False
3	definition/bookmarks/b6e655a598623dd09210.book...	b6e655a598623dd09210	M	ff7a3305010160561ec0	Report Analysis	cb866d6ad2b80080581b	False

The future of scaling and documenting bookmarks



There you are!



Semantic Link Labs in Fabric

```
from sempy.fabric import FabricDataFrame

df_bookmarks = FabricDataFrame(rpt.list_bookmarks())

df_bookmarks.to_lakehouse_table("BookmarksTable")
```

Explorer

lh_bookmark

Tables

bookmarkstable

pagestable

reportlevelmeasrest...

visualstable

Files

	ABC	File Path	ABC	Bookmark Name	ABC	Bookmark Display Na...	ABC	Page Name	ABC	Page Display Name	ABC	Visual Name	o/1	Visual Hidden
79		definition/bookmarks/cad...		cad63c7455eec92a637		Documentation hidden		9fece34aa68927a760cd		Documentation info		0e858e1f923536e42803		False
80		definition/bookmarks/cad...		cad63c7455eec92a637		Documentation hidden		9fece34aa68927a760cd		Documentation info		78686dae01c62af9486e		False
81		definition/bookmarks/cad...		cad63c7455eec92a637		Documentation hidden		9fece34aa68927a760cd		Documentation info		c234c0125a2ab993bda2		False
82		definition/bookmarks/cad...		cad63c7455eec92a637		Documentation hidden		9fece34aa68927a760cd		Documentation info		d2b61e7af612bd54fd84		False
83		definition/bookmarks/cad...		cad63c7455eec92a637		Documentation hidden		9fece34aa68927a760cd		Documentation info		e5bd27162e33d3153485		False
84		definition/bookmarks/cad...		cad63c7455eec92a637		Documentation hidden		9fece34aa68927a760cd		Documentation info		95b9dca958b876c566b9		False
85		definition/bookmarks/cad...		cad63c7455eec92a637		Documentation hidden		9fece34aa68927a760cd		Documentation info		5984160fd57ed5b499db		False
86		definition/bookmarks/cad...		cad63c7455eec92a637		Documentation hidden		9fece34aa68927a760cd		Documentation info		a099885f50f257a82d00		False
87		definition/bookmarks/cad...		cad63c7455eec92a637		Documentation hidden		9fece34aa68927a760cd		Documentation info		30dcc7b03a2886ea7cd0		False
88		definition/bookmarks/cad...		cad63c7455eec92a637		Documentation hidden		9fece34aa68927a760cd		Documentation info		96d0ec6f490fdd2dd97		False
89		definition/bookmarks/cad...		cad63c7455eec92a637		Documentation hidden		9fece34aa68927a760cd		Documentation info		bd3060cf931d4c139c6		False
90		definition/bookmarks/cad...		cad63c7455eec92a637		Documentation hidden		9fece34aa68927a760cd		Documentation info		3da401293d10a390bb49		False
91		definition/bookmarks/cad...		cad63c7455eec92a637		Documentation hidden		9fece34aa68927a760cd		Documentation info		7289bdfdb6e39d07cd90		False
92		definition/bookmarks/cad...		cad63c7455eec92a637		Documentation hidden		9fece34aa68927a760cd		Documentation info		017c1b9f7db1756175e3		False
93		definition/bookmarks/e54...		e54fc0a29bc83595c0c9		Reset slicers with predefin...		a20fb1fde3ecfdda0ea3		Reset slicers with predefin...		79997ef3bd2bb1268f85		False
94		definition/bookmarks/e54...		e54fc0a29bc83595c0c9		Reset slicers with predefin...		a20fb1fde3ecfdda0ea3		Reset slicers with predefin...		f796735ec844e6545132		False
95		definition/bookmarks/e54...		e54fc0a29bc83595c0c9		Reset slicers with predefin...		a20fb1fde3ecfdda0ea3		Reset slicers with predefin...		0e335cc3d2f2a0da4217		False
96		definition/bookmarks/e54...		e54fc0a29bc83595c0c9		Reset slicers with predefin...		a20fb1fde3ecfdda0ea3		Reset slicers with predefin...		1f656fc7566e9a54001d		False
97		definition/bookmarks/e54...		e54fc0a29bc83595c0c9		Reset slicers with predefin...		a20fb1fde3ecfdda0ea3		Reset slicers with predefin...		1b18abc56603b5c6cca2		False
98		definition/bookmarks/e54...		e54fc0a29bc83595c0c9		Reset slicers with predefin...		a20fb1fde3ecfdda0ea3		Reset slicers with predefin...		d42c4b58cb7acac713b6		False
99		definition/bookmarks/e54...		e54fc0a29bc83595c0c9		Reset slicers with predefin...		a20fb1fde3ecfdda0ea3		Reset slicers with predefin...		b29c5c7097a1a1944fc9		False
100		definition/bookmarks/e54...		e54fc0a29bc83595c0c9		Reset slicers with predefin...		a20fb1fde3ecfdda0ea3		Reset slicers with predefin...		a544984ce5070bdddcbfc		False
101		definition/bookmarks/e54...		e54fc0a29bc83595c0c9		Reset slicers with predefin...		a20fb1fde3ecfdda0ea3		Reset slicers with predefin...		74fccbebe29f4d986b29		False
102		definition/bookmarks/59e...		59e44f85b08ebc591afc		Matrix		96c31fdc811cd14c72fb		Switch visualizations		6726a6532c9fabd94fe6		False
103		definition/bookmarks/59e...		59e44f85b08ebc591afc		Matrix		96c31fdc811cd14c72fb		Switch visualizations		c7337a24c4bb525b94d6		False
104		definition/bookmarks/59e...		59e44f85b08ebc591afc		Matrix		96c31fdc811cd14c72fb		Switch visualizations		a9df2def9efdc6cf53c2		False

” “Be kind to your
future self

— and the next person who takes over your report.”

Resources to study more

- https://www.linkedin.com/posts/nicholas-lea-trengrouse_powerbi-datavisualization-userexperience-ugcPost-7244954155121786880-RvzS/ by Nicholas Lea Trengrouse
- [Mastering Power BI Bookmarks](#) by Guy In A Cube
- [Sorting a matrix by a calculation item column](#) by Bernat Agulló Roselló
- <https://spilledgraphics.com/power-bi-graphics/> by Carlos Barboza
- [A new approach for dynamic Power BI visuals?](#) by Guy In A Cube
- https://www.linkedin.com/posts/injae-park_powerbi-businessintelligence-dataanalyst-activity-7236705203574501376-mYdY by Injae Park
- [Master Power BI Bookmarks & Layer Grouping to Create Next-Level UIs!](#) by Next Level Power BI Reports
- <https://powerbi.microsoft.com/en-us/blog/power-bi-desktop-october-2017-feature-summary/>
- <https://powerbi.microsoft.com/da-dk/blog/announcing-personal-bookmarks-in-the-power-bi-service/>
- https://semantic-link-labs.readthedocs.io/en/stable/sempy_labs.report.html
- <https://www.linkedin.com/pulse/introducing-bookmark-killer-david-kofod-hanna-90quf/> by David Kofod Hanna

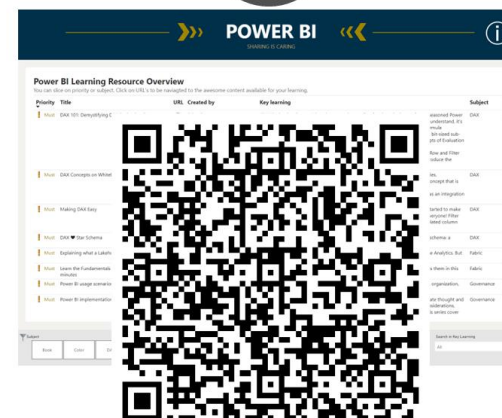
Thank you!



David Kofod Hanna
Senior Advisor @ twoday Data & AI



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 Open Free Learning
Resource Power BI Report