getfame

-n names

-s series

-e expression

A FAME Json api 2025

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2025 Supports series w identical series names in different FAME databases, formulas can aggregate from several open databases

1. getfame -n gets FAME names and metadata

rsb@sl-fame-p1:/ssb/bruker/refertid/system/myfame/api

```
sl-fame-p1:/ssb/bruker/refertid/system/myfame/api> getfame -n "$REFERTID/data/kpi_publ, $REFERTID/data/kpi_erik.db"  "Total?,K01111_?"
[{"GetFAME_Json_Api": "Erik.Soberg@ssb.no",
"Version": "Oslo-20250602",
"Executed": "2025-06-03T10:42:35",
"Famever": "2022.43",
"Database": "/ssb/bruker/refertid/data/kpi_publ, /ssb/bruker/refertid/data/kpi_erik.db",
"Open": "KPI_PUBL, KPI_ERIK",
"Result": "$HOME/.GetFAME/getfamenames.json",
"Wildcard": "TOTAL?,K01111_?",
"Found": 22,
"Notfound": 0,
"Missing": "",
"Series":[
{"Name":"KPI_ERIK'K01111_11111.IPR","Class":"SERIES","Observed":"AVERAGED","Desc":"Ris_indeks pris","Created":"2017-01-18T18:28:28","Updated":"2025-02-10T09:25:49"},
{"Name":"KPI_ERIK'K01111_11111.IPR.A","Class":"SERIES","Observed":"AVERAGED","Desc":"Ris_indeks pris_Ersgjsn","Created":"2017-01-18T18:28:28","Updated":"2025-01-10T08:33:25"},
{"Name":"KPI_ERIK'TOTAL.IPR","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_indeks pris","Created":"2017-01-18T18:28:29","Updated":"2025-02-10T09:25:48"},
{"Name":"KPI_ERIK'TOTAL.IPR.A","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_indeks pris_Ersgjsn","Created":"2017-01-18T18:28:29","Updated":"2025-01-10T08:33:25"},
{"Name":"KPI_ERIK'TOTAL.IPR.G","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_Trend(prog1)","Created":"2025-02-10T09:25:49","Updated":"2025-02-10T09:25:50"},
{"Name":"KPI_ERIK'TOTAL.IPR.S","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_Sesongjustert(prog1)","Created":"2025-02-10T09:25:49","Updated":"2025-02-10T09:25:50"},
{"Name":"KPI_ERIK'TOTAL.PCT","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_1 mEneds prisendring","Created":"2017-01-18T18:28:29","Updated":"2017-01-18T18:57:02"},
{"Name":"KPI_ERIK'TOTAL.VK","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_vekt","Created":"2017-01-18T18:28:29","Updated":"2025-02-10T09:25:53"},
{"Name":"KPI_ERIK'TOTAL.YTYPCT","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_12 mEneders prisendring","Created":"2017-01-18T18:28:29","Updated":"2017-01-18T18:57:02"},
{"Name":"KPI_ERIK'TOTAL_JAE.IPR.G","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_Trend(prog1)","Created":"2025-02-10T09:25:49","Updated":"2025-02-10T09:25:50"},
{"Name":"KPI_ERIK'TOTAL_JAE.IPR.S","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_Sesongjustert(prog1)","Created":"2025-02-10T09:25:49","Updated":"2025-02-10T09:25:50"},
{"Name":"KPI_PUBL'K01111_11111.IPR","Class":"SERIES","Observed":"AVERAGED","Desc":"Ris_indeks pris","Created":"2017-01-18T18:28:28","Updated":"2025-05-09T08:23:40"},
{"Name":"KPI_PUBL'K01111_11111.IPR.A","Class":"SERIES","Observed":"AVERAGED","Desc":"Ris_indeks pris_Ersgjsn","Created":"2017-01-18T18:28:28","Updated":"2025-01-10T08:33:25"},
{"Name":"KPI_PUBL'TOTAL.IPR","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_indeks pris","Created":"2017-01-18T18:28:29","Updated":"2025-05-09T08:23:39"},
{"Name":"KPI_PUBL'TOTAL.IPR.A","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_indeks pris_Ersgjsn","Created":"2017-01-18T18:28:29","Updated":"2025-01-10T08:33:25"},
{"Name":"KPI_PUBL'TOTAL.IPR.G","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_Trend(prog1)","Created":"2025-05-09T08:23:40","Updated":"2025-05-09T08:23:42"},
{"Name":"KPI_PUBL'TOTAL.IPR.S","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_Sesongjustert(prog1)","Created":"2025-05-09T08:23:40","Updated":"2025-05-09T08:23:42"},
{"Name":"KPI_PUBL'TOTAL.PCT","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_1 mEneds prisendring","Created":"2017-01-18T18:28:29","Updated":"2017-01-18T18:57:02"},
{"Name":"KPI_PUBL'TOTAL.VK","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_vekt","Created":"2017-01-18T18:28:29","Updated":"2025-05-09T08:23:45"},
{"Name":"KPI_PUBL'TOTAL.YTYPCT","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_12 mEneders prisendring","Created":"2017-01-18T18:28:29","Updated":"2017-01-18T18:57:02"},
{"Name":"KPI_PUBL'TOTAL_JAE.IPR.G","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_Trend(prog1)","Created":"2025-05-09T08:23:40","Updated":"2025-05-09T08:23:42"},
{"Name":"KPI_PUBL'TOTAL_JAE.IPR.S","Class":"SERIES","Observed":"AVERAGED","Desc":"Totalindeks_Sesongjustert(prog1)","Created":"2025-05-09T08:23:40","Updated":"2025-05-09T08:23:42"} ]
"Elapsed_time_in_seconds":0.058
  } ]
```

getfame –n with identical databases identical seriesnames different places)

sl-fame-1

```
sl-fame-1:~/MyFame2023/pro/api> $REFERTID/system/myfame/api/getfame -n "testapi, $PWD/../testapi.db" "e?,TEST?"
[{"GetFAME_Json_Api": "Erik.Soberg@ssb.no",
"Version": "Oslo-20250605",
"Executed": "2025-06-04T14:14:00",
"Famever": "11.53",
"Database": "testapi, /ssb/bruker/rsb/MyFame2023/pro/api/../testapi.db",
"Openas": "TESTAPI, TESTAPI2",
"Result": "$HOME/.GetFAME/getfamenames.json",
"Wildcard": "E?,TEST?",
"Found": 9,
"Notfound": 0,
"Missing": "",
"Series":[
{"Name":"TESTAPI'ERIK","Class":"SERIES","Observed":"SUMMED","Freq":"MONTHLY","Desc":"dEScription of erik","Created":"2024-09-09T22:21:26","Updated":"2025-06-02T12:48:59"},
{"Name":"TESTAPI'TEST.ANN","Class":"SERIES","Observed":"SUMMED","Freq":"ANNUAL","Desc":"","Created":"2024-06-16T21:53:09","Updated":"2024-06-17T15:44:56"},
{"Name":"TESTAPI'TEST.MON","Class":"SERIES","Observed":"SUMMED","Freq":"MONTHLY","Desc":"mytest","Created":"2024-06-16T21:54:14","Updated":"2025-06-01T22:39:56"},
{"Name":"TESTAPI'TEST.MON.F","Class":"FORMULA","Observed":"TEST.MON *10","Freq":"NC","Desc":"","Created":"2024-06-16T21:55:16","Updated":"2024-06-16T21:55:53"},
{"Name":"TESTAPI2'ERIK","Class":"SERIES","Observed":"SUMMED","Freq":"MONTHLY","Desc":"secript of erik soeb WOW","Created":"2024-09-09T22:21:26","Updated":"2025-06-01T15:55:47"},
{"Name":"TESTAPI2'EXTRA","Class":"SERIES","Observed":"SUMMED","Freq":"ANNUAL","Desc":"extraextras","Created":"2025-05-30T13:12:53","Updated":"2025-06-01T15:55:47"},
{"Name":"TESTAPI2'TEST.ANN","Class":"SERIES","Observed":"SUMMED","Freq":"ANNUAL","Desc":"","Created":"2024-06-16T21:53:09","Updated":"2025-05-30T11:44:37"},
{"Name":"TESTAPI2'TEST.MON","Class":"SERIES","Observed":"SUMMED","Freq":"MONTHLY","Desc":"","Created":"2024-06-16T21:54:14","Updated":"2024-06-16T22:42:05"},
{"Name":"TESTAPI2'TEST.MON.F","Class":"FORMULA","Observed":"TEST.MON *10","Freq":"NC","Desc":"","Created":"2024-06-16T21:55:16","Updated":"2024-06-16T21:55:53"} ],
"Elapsed_time_in_seconds":0.004
  } ]
```

getfame -n flexibility

Combine with linux commands to find descriptions, or series with incorrect definitions
The command below lists all series in the database but only show the one with the text «SUMM»

```
rsb@sl-fame-p1:/ssb/bruker/refertid/system/myfame/api
sl-fame-p1:/ssb/bruker/refertid/system/myfame/api> getfame -n "$REFERTID/data/kpi_publ"  "?" | grep SUMM
{"Name":"KPI_PUBL'JAE_TOTAL.IPR.S","Class":"SERIES","Observed":"SUMMED","Desc":"","Created":"2017-02-10T08:27:54","Updated":"2017-02-10T09:05:17"},
```

2. getfame -s gets data observations with [time,value] touplets

rsb@sl-fame-p1:/ssb/bruker/refertid/system/myfame/api

```
sl-fame-p1:/ssb/bruker/refertid/system/myfame/api>  getfame -s "$REFERTID/data/kpi_publ, $HOME/kpi.db" "KO2.ipr,KO1.IPR" "freq m;date feb24 to mar24;deci 1"
[{"GetFAME_Json_Api": "Erik.Soberg@ssb.no",
"Version": "Oslo-20250602",
"Executed": "2025-06-03T11:02:28",
"Famever": "2022.43",
"Database": "/ssb/bruker/refertid/data/kpi_publ, /ssb/bruker/rsb/kpi.db",
"Open": "KPI_PUBL, KPI",
"Result": "$HOME/.GetFAME/getfameseries.json",
"Wildcard": "KO2.IPR,KO1.IPR",
"Found": 4,
"Notfound": 0,
"Missing": "",
"Series": [
{"Name": "KPI_PUBL'KO2.IPR",
"Desc": "Alkoholholdige drikkevarer og tobakk_indeks pris",
"Daterange": "FEB24 TO MAR24",
"Frequency": "MONTHLY",
"Observations":[
{"Date":"2024-02-01", "Value":126.5, "Epo":[1706745600000, 126.5]},
{"Date":"2024-03-01", "Value":126.4, "Epo":[1709251200000, 126.4]}
]  }     ,
{"Name": "KPI_PUBL'KO1.IPR",
"Desc": "Matvarer og alkoholfrie drikkevarer_indeks pris",
"Daterange": "FEB24 TO MAR24",
"Frequency": "MONTHLY",
"Observations":[
{"Date":"2024-02-01", "Value":128.2, "Epo":[1706745600000, 128.2]},
{"Date":"2024-03-01", "Value":125.8, "Epo":[1709251200000, 125.8]}
]  }     ,
{"Name": "KPI'KO2.IPR",
"Desc": "Alkoholholdige drikkevarer og tobakk_indeks pris",
"Daterange": "FEB24 TO MAR24",
"Frequency": "MONTHLY",
"Observations":[
{"Date":"2024-02-01", "Value":126.5, "Epo":[1706745600000, 126.5]},
{"Date":"2024-03-01", "Value":126.4, "Epo":[1709251200000, 126.4]}
]  }     ,
{"Name": "KPI'KO1.IPR",
"Desc": "Matvarer og alkoholfrie drikkevarer_indeks pris",
"Daterange": "FEB24 TO MAR24",
"Frequency": "MONTHLY",
"Observations":[
{"Date":"2024-02-01", "Value":128.2, "Epo":[1706745600000, 128.2]},
{"Date":"2024-03-01", "Value":125.8, "Epo":[1709251200000, 125.8]}
]  }     ],
"Elapsed_time_in_seconds":0.005
  } ]
```

getfame -s getfameseries samples

$REFERTID/system/myfame/api/getfame -s /ssb/bruker/refertid/data/kpi_publ.db "total.ipr"

getfame -s /ssb/bruker/refertid/data/kpi_publ.db "total.ipr, K0?IPR " "date 2024 "

getfame -s /ssb/bruker/refertid/data/kpi_publ.db total.ipr "freq m; date thisday(m)-5 to * "

getfame -s $REFERTID/data/fornavn.db "?ERIK,KRISTIN,JIM? " "date 2010 to 2012 "

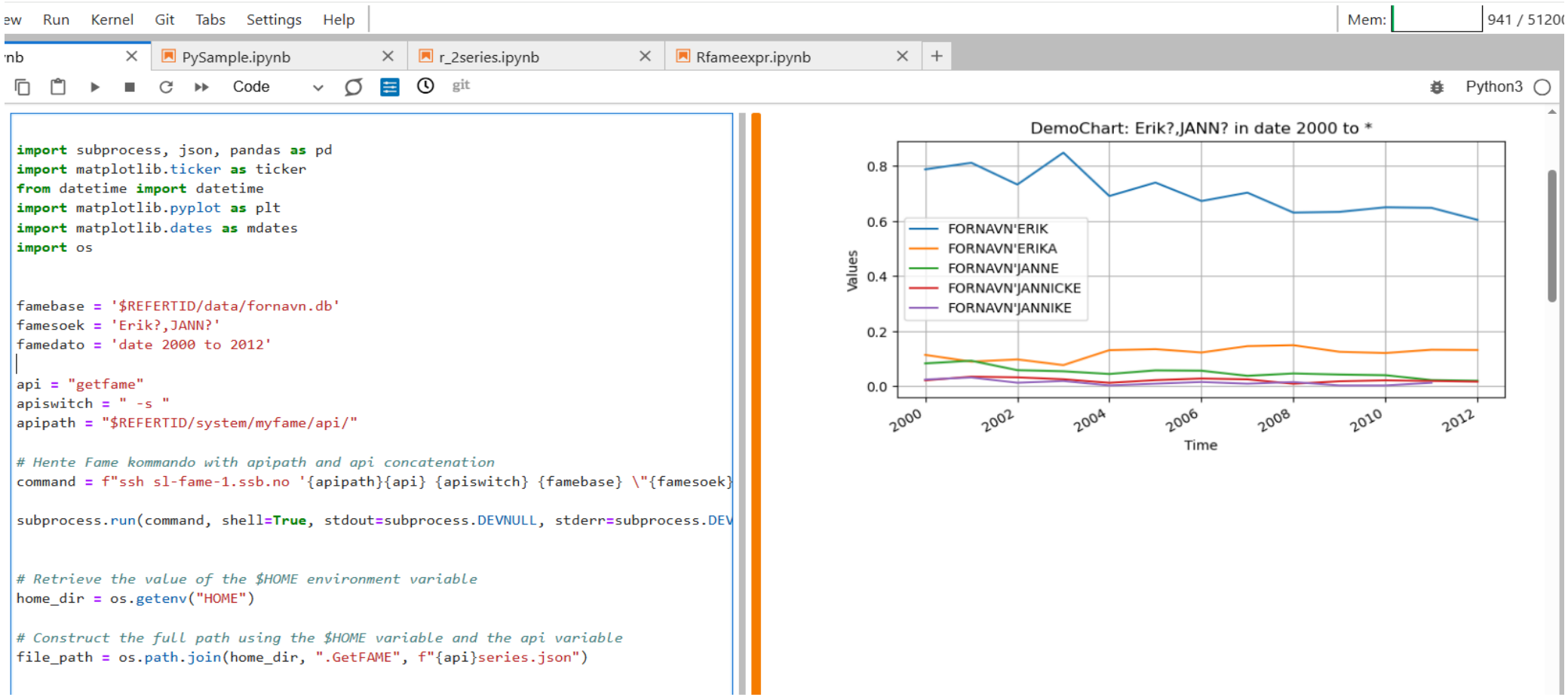
getfame -s " /ssb/bruker/refertid/data/fornavn.db" "?JAN?" "date 2000 to 2005 "

getfame -s " /ssb/bruker/refertid/data/fornavn.db" "JI? " "date 2000 to *; deci 1 "

getfame -s "fornavn.db, name.db" "JI? ,MATT?" "date 2000 to * ; deci 2 "

getfame -s "pi1.db, cpi2.db,cpi_form.db" "Total.ipr" "date 2025 ; deci 2"

getfame –s used from om JupyterLab with Python3:



3. getfame -e getfameexpression

advanced mode

- Data-observations, from FAME database(s) given one FAME-**expression:**

```
getfame -e  "$REFERTID/data/fornavn.db "  "mave(ERIK,2)"  "date 2000 to 2010"
getfame -e  "$REFERTID/data/fornavn.db "  "Lsum(ERIK,EIRIK)"  "date 2000 to *"
getfame -e  "$REFERTID/data/fornavn.db "  "ERIK+EIRIK"  "date 2000 to *"
getfame –e "$REFERTID/data/kpi_publ.db, mycpi.db " "convert(total.ipr,annual,constant) "  "date *; deci 1 "
getfame -e  "$REFERTID/data/kpi_publ.db, mycpi.db "  "PCT(mycpi'K09.IPR)"  "date 2025; deci 1 "
getfame -e   "cpi1.db,cpi2.db,cpi_form.db" "cpi1'Total.ipr"  "date 2025 ; deci 2"
```

Be aware to **double quote arguments** when they contain special char like : , (‘ ;

getfame –e gets a fame-expression

sl-fame-1

```
sl-fame-1:/ssb/bruker/refertid/system/myfame/api> getfame -e "/ssb/bruker/refertid/data/kpi_publ.db" "pct(total.ipr)" "date 2024 to *; deci 1"
[{"GetFAME_Json_Api": "Erik.Soberg@ssb.no",
"Version": "Oslo-20250605",
"Executed": "2025-06-04T16:02:57",
"Famever": "11.53",
"Database": "/ssb/bruker/refertid/data/kpi_publ.db",
"Openas": "KPI_PUBL",
"Result": "$HOME/.GetFAME/getfameexpr.json",
"Series": [
{"Name": "PCT(TOTAL.IPR)",
"Desc": "pct(total.ipr)",
"Daterange": "2024 TO *",
"Frequency": "MONTHLY",
"Observations":[
{"Date":"2024-01-01", "Value":0.1, "Epo":[1704067200000, 0.1]},
{"Date":"2024-02-01", "Value":0.2, "Epo":[1706745600000, 0.2]},
{"Date":"2024-03-01", "Value":0.2, "Epo":[1709251200000, 0.2]},
{"Date":"2024-04-01", "Value":0.8, "Epo":[1711929600000, 0.8]},
{"Date":"2024-05-01", "Value":-0.1, "Epo":[1714521600000, -0.1]},
{"Date":"2024-06-01", "Value":0.2, "Epo":[1717200000000, 0.2]},
{"Date":"2024-07-01", "Value":0.5, "Epo":[1719792000000, 0.5]},
{"Date":"2024-08-01", "Value":-0.9, "Epo":[1722470400000, -0.9]},
{"Date":"2024-09-01", "Value":0.3, "Epo":[1725148800000, 0.3]},
{"Date":"2024-10-01", "Value":0.6, "Epo":[1727740800000, 0.6]},
{"Date":"2024-11-01", "Value":0.3, "Epo":[1730419200000, 0.3]},
{"Date":"2024-12-01", "Value":-0.1, "Epo":[1733011200000, -0.1]},
{"Date":"2025-01-01", "Value":0.2, "Epo":[1735689600000, 0.2]},
{"Date":"2025-02-01", "Value":1.4, "Epo":[1738368000000, 1.4]},
{"Date":"2025-03-01", "Value":-0.7, "Epo":[1740787200000, -0.7]},
{"Date":"2025-04-01", "Value":0.7, "Epo":[1743465600000, 0.7]}
]  }     ],
"Elapsed_time_in_seconds":0.002
  } ]
```

getfame –e with several different databases

rsb@sl-fame-p1:/ssb/bruker/refertid/system/myfame/api

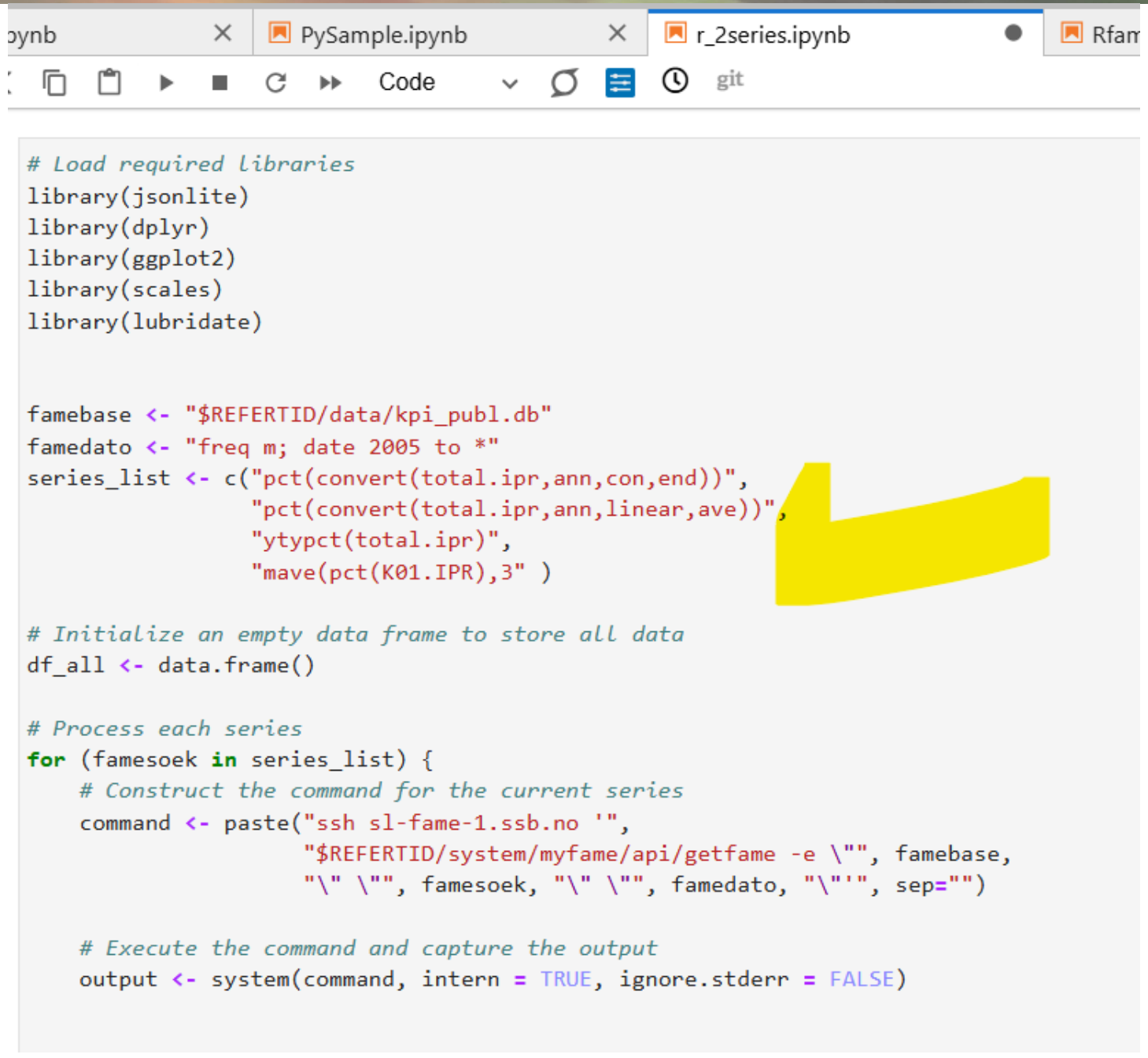
```
xterm:>  getfame -e "$REFERTID/data/kpi_publ.db, cpi.db" "mave(cpi'total.ipr,12)" "date 2024 to *;deci 1"

[{"GetFAME_Json_Api": "Erik.Soberg@ssb.no",
"Version": "Oslo-20250602",
"Executed": "2025-06-03T10:14:24",
"Famever": "11.53",
"Database": "/ssb/bruker/refertid/data/kpi_publ.db, cpi.db",
"Open": "KPI_PUBL, CPI",
"Result": "$HOME/.GetFAME/getfameexpr.json",
"Series": [
{"Name": "MAVE(TOTAL.IPR,12)",
"Desc": "mave(total.ipr,12)",
"Daterange": "2024 TO *",
"Frequency": "MONTHLY",
"Observations":[
{"Date":"2024-01-01", "Value":130.1, "Epo":[1704067200000, 130.1]},
{"Date":"2024-02-01", "Value":130.5, "Epo":[1706745600000, 130.5]},
{"Date":"2024-03-01", "Value":130.9, "Epo":[1709251200000, 130.9]},
{"Date":"2024-04-01", "Value":131.3, "Epo":[1711929600000, 131.3]},
{"Date":"2024-05-01", "Value":131.7, "Epo":[1714521600000, 131.7]},
{"Date":"2024-06-01", "Value":131.9, "Epo":[1717200000000, 131.9]},
{"Date":"2024-07-01", "Value":132.2, "Epo":[1719792000000, 132.2]},
{"Date":"2024-08-01", "Value":132.5, "Epo":[1722470400000, 132.5]},
{"Date":"2024-09-01", "Value":132.9, "Epo":[1725148800000, 132.9]},
{"Date":"2024-10-01", "Value":133.1, "Epo":[1727740800000, 133.1]},
{"Date":"2024-11-01", "Value":133.4, "Epo":[1730419200000, 133.4]},
{"Date":"2024-12-01", "Value":133.6, "Epo":[1733011200000, 133.6]},
{"Date":"2025-01-01", "Value":133.9, "Epo":[1735689600000, 133.9]},
{"Date":"2025-02-01", "Value":134.3, "Epo":[1738368000000, 134.3]},
{"Date":"2025-03-01", "Value":134.6, "Epo":[1740787200000, 134.6]},
{"Date":"2025-04-01", "Value":134.9, "Epo":[1743465600000, 134.9]}
]  }     ],
"Elapsed_time_in_seconds":0.004
  } ]
```

Using the power of FAME by

getfame –e

with R from Jupiterlab

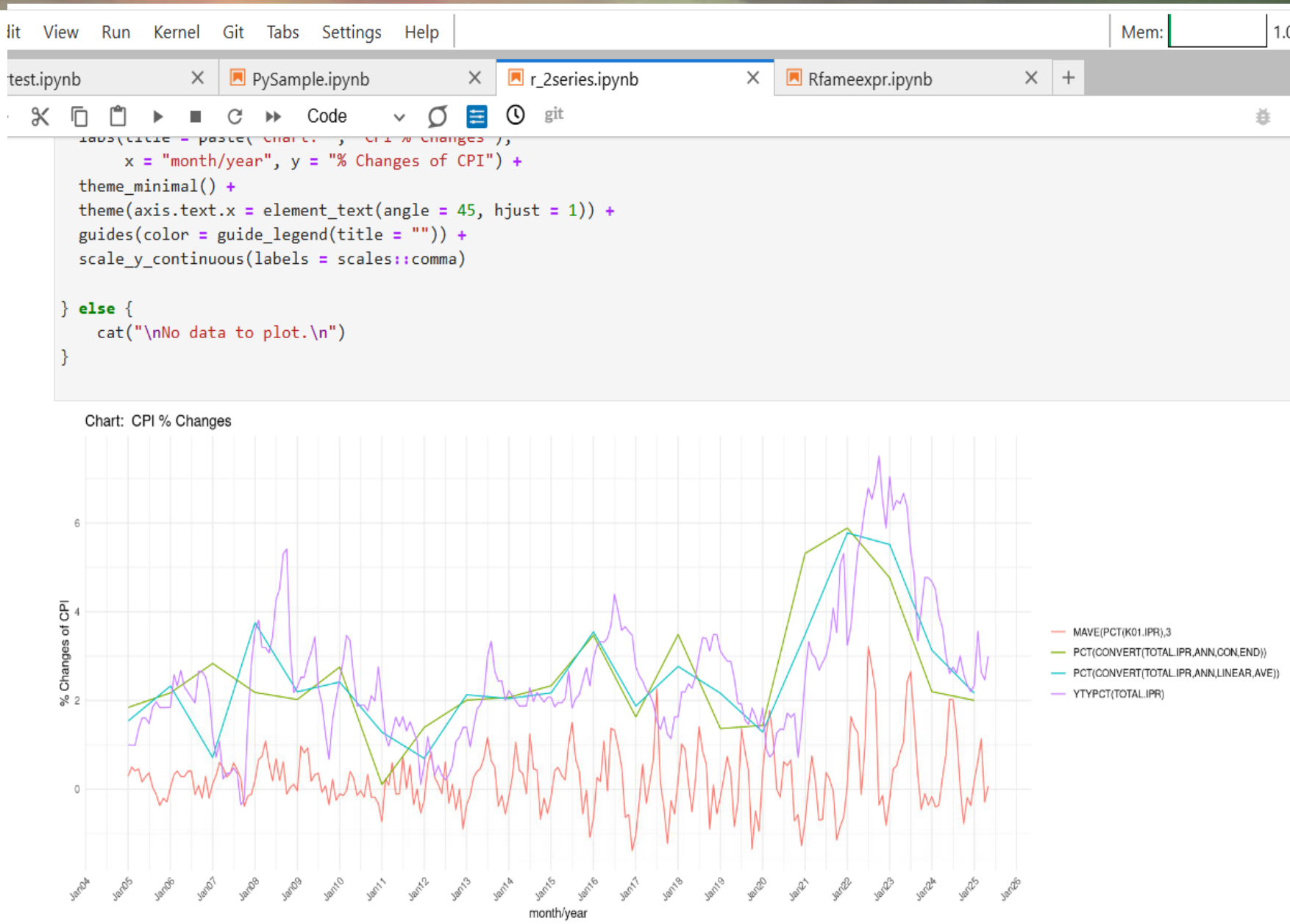
list of expressions



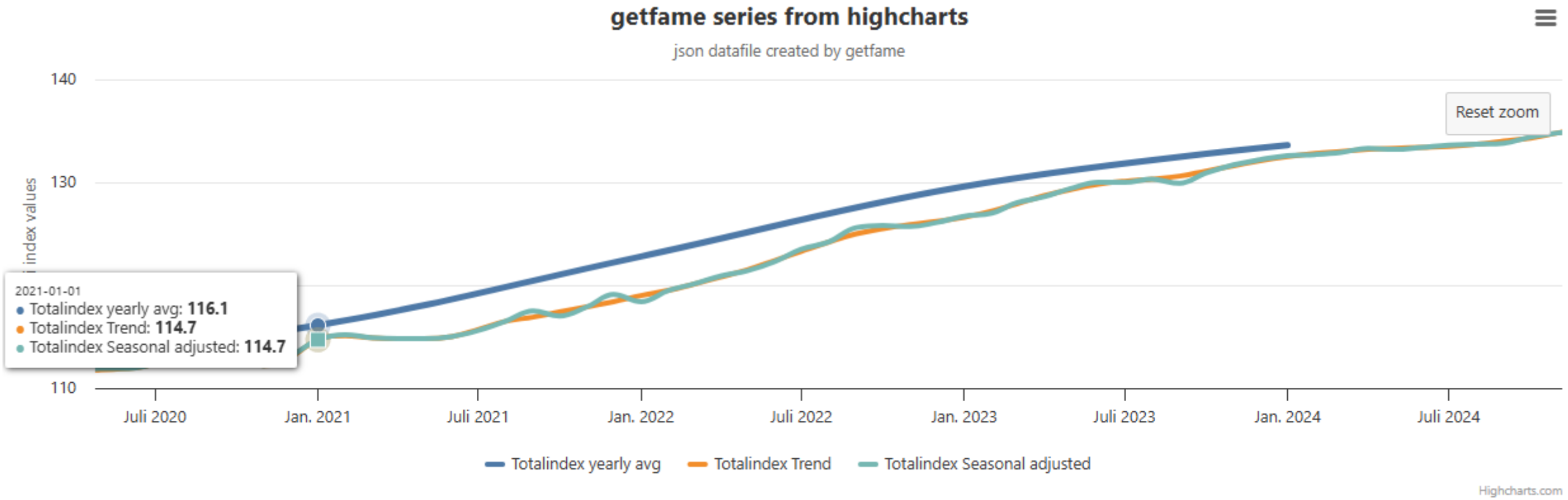
getfame -e

Result:

different series
different frequencies
different expressions



Highchart to view the result in a browser



Zoomable Xaxis using getfame Epoch datetime, tooltip, save as csv, customizable, more samples at www.eriksberg.no

Help : getfame –h or just skip the arguments

1. getfame –n

getfamenames (gets series names & metadata from databases with a list of wildcards

2. getfame –s

getfameseries (gets observations from one or more series from database(s) given a list of serienames or FAME wildcards)

3. getfame -e

getfameexpr (gets observations given 1 FAME expression)

For complete **jupyterlab** samples, see Github

Summary

- The **getfame –e** option use the full power of FAME and can evaluate formulas, functions, conversions among various series, formulas, frequiencies and databases

- To get more series with **getfame –e** simply loop through expressions and add results to same charts or dataset.

- **getfame –n** is powerful when combining ***grep*** **|** ***more*** **|*****head*** to search for series/formulas names or metadata

Observations & Comments

- Possible to introduce powerful and modern visualizations tools like www.highcharts.com The JSON output is designed for highcharts.

- Reduce the barrier to use data in FAME, and the power of FAME, when simply calling **getfame** from Python or R

- With the **getfame** json api you have all functionality needed to build a GUI (like myfame) in DASH, Visual Studio, QT …

- **getfame** can be run i **q**uiet (silent) mode, no output is not shown on the screen: **getfame –nq** **getfame –sq** **getfame -eg**