

Refinitiv Workspace - Datastream

Retrieving Data using “Refinitiv Workspace Datastream” Tab

How to search for data types, and select display in Excel by using “Refinitiv Workspace Datastream” tab

Refer to “How to search for instruments in Excel by using “Refinitiv Workspace Datastream” tab” manual before proceeding on the following steps.


1. Select Data type

The screenshot shows the Refinitiv Workspace Datastream Formula Builder interface. The interface is divided into several sections:

- Series/Lists:** A dropdown menu showing the selected series: "@AAPL,Q:SOLM,Q:SPRM,Q:VTE,Q:AIEP,Q:TAE,Q:UBBE,Q:KTBT,".
- Datatypes/Expressions:** A search box with the text "Search Datatypes" and a dropdown arrow. Below it, there are fields for "Start-End" (From: -2Y, To:), "Frequency" (Daily), and "Relative entry box".
- Options:** A section with various checkboxes:
 - Display Custom Header (unchecked)
 - Display Row Titles (checked)
 - Display Column Titles (checked)
 - Transpose Data (unchecked)
 - Display Code (unchecked)
 - Display Currency (unchecked)
 - Display Latest Value First (unchecked)
 - Hyperlink To Series Metadata (unchecked)
 - Hyperlink To Datatype Definition (unchecked)
- Display Expression:** A section with radio buttons:
 - 1st Series (selected)
 - 1st Series & Description (unselected)
- Date Format:** A section with checkboxes:
 - Yearly-Date (unchecked)
 - Quarterly-Date (unchecked)
- Auto Refresh:** A checked checkbox.

The formula bar at the bottom shows the formula: '=DSGRID("@AAPL,Q:SOLM,Q:SPRM,Q:VTE,Q:AIEP,Q:TAE,Q:UBBE,Q:KTBT";"-2Y";"Daily";"RowHeader=true;ColHeader=true;DispSeriesDescription=true;YearlyTSTFormat=false;QuarterlyTSTFormat=false")'

This step will be a selection of different data types: prices, fundamental, financial statement items, ratios, etc.

- i. Select the related Asset class first – in this case is Equities
- ii. Search by typing key word and click search
- iii. Filter for more specific data on the left pane categories
- iv. Select data that would like to retrieve
- v.  Total Return Index 3-stars means the most related data to your key word
- vi. Description and details are available by click on the name of data type

Example: Select Equities and search for Total Return of stock

The screenshot shows the Refinitiv Datastream Navigator interface. The search bar contains 'Equities' and 'total return'. The left-hand pane shows the 'DATATYPE HIERARCHY' with 'Equities' selected. The main results table displays various return metrics for Equities, with 'Total Return Index' highlighted as the top result.

Name	Symbol	Source	Currency
Total Return Index	RI	Datastream	Y
Return On Equity Total %	WC08301	Worldscope	N
Return On Equity Total % 5 Year Average	WC08305	Worldscope	N
Total Investment Return	WC08801	Worldscope	N
Total Investment Return 3 Year Annual Return	WC08803	Worldscope	N
Total Investment Return 5 Year Annual Return	WC08805	Worldscope	N
MSCI Daily Gross Total Return (Local)	MSGRL	MSCI	N
MSCI Daily Gross Total Return (USD)	MSGRD	MSCI	N
MSCI Daily Net Total Return (Local)	MSNRL	MSCI	N
MSCI Daily Net Total Return (USD)	MSNRD	MSCI	N
Return on Assets Total Number of Estimates (including those excluded from the Mean) FY1	ROA1NET	IBES	N
Return on Assets Total Number of Estimates (including those excluded from the Mean) FY2	ROA2NET	IBES	N
Return on Assets Total Number of Estimates (including those excluded from the Mean) FY3	ROA3NET	IBES	N
Return on Assets Total Number of Estimates (including those excluded from the Mean) FY4	ROA4NET	IBES	N
Return on Assets Total Number of Estimates (including those excluded from the Mean) FY5	ROA5NET	IBES	N
Return on Assets Total Number of Estimates INT5	ROA5NET	IBES	Y
Return on Assets Total Number of Estimates INT6	ROA6NET	IBES	Y
Return on Assets Total Number of Estimates INT7	ROA7NET	IBES	Y
Return on Assets Total Number of Estimates INT8	ROA8NET	IBES	Y
Return on Assets Total Number of Estimates in the Mean FY1	ROA1NE	IBES	N
Return on Assets Total Number of Estimates in the Mean FY2	ROA2NE	IBES	N
Return on Assets Total Number of Estimates in the Mean FY3	ROA3NE	IBES	N

Description and methodology will be shown once click on the name of data type

The screenshot shows the Refinitiv Datastream Navigator interface. The search bar at the top contains 'total return'. The search results are filtered to 'Equities' and show a table with columns for Name, Symbol, Source, and Currency. The 'Total Return Index' is highlighted, and a red box is drawn around the three stars and the name. A red arrow points from this box to a detailed pop-up window titled 'RI - Total Return Index'. This window contains a description of the index, a formula for its calculation, and definitions for the variables used in the formula.

RI - Total Return Index

Explorers: Key Datypes, Datastream > Time Series > Pricing

Actions: Add to My Selections

Notes: A return index (RI) is available for individual equities and unit trusts. This shows a theoretical growth in value of a share holding over a specified period, assuming that dividends are re-invested to purchase additional units of an equity or unit trust at the closing price applicable on the ex-dividend date.

For all countries except the USA and Canada detailed dividend payment data is only available on Datastream from 1988 onwards. Up to this time the RI is constructed using the annualised dividend yield. This method adds an increment of 1/260th part of the dividend yield to the price each weekday. There are assumed to be 260 weekdays in a year, market holidays are ignored.

Method 1 (using annualised dividend yield)


RI on the basedate = 100, then:

$$RI_t = RI_{t-1} * \frac{PI_t}{PI_{t-1}} * \left(1 + \frac{DY_t * 1}{100 * N}\right)$$

Where:

RI_t = return index on day t

RI_{t-1} = return index on previous day

Then check the box in front of stars  Total Return Index and click "Use".
Or click on the data type code "RI".

2. Select time period of historical data, and frequency

Time period – can be input as default format: Start of Week, End of Week, and etc.

Also can be input as exact date: DD/MM/YYYY (28/07/2015)

Frequency – should select the suitable frequency that related to data type

For example; Economic data with Monthly or Quarterly frequency

Financial items data with Quarterly or Yearly frequency

The screenshot displays the Refinitiv Datastream Formula Builder window. The 'Series/Lists' field contains the formula: `@AAPL,Q:SOLM,Q:SPRM,Q:VTE,Q:AIEP,Q:TAE,Q:UBBE,Q:KTBT`. The 'Datatypes/Expressions' field is set to 'RI'. The 'Start-End' dropdown is open, showing options: From, To, and Frequency. The 'Frequency' option is selected, and a list of frequency options is displayed: -2Y, -Y, Base Date, Start of Week, Start of Month, Start of Quarter, Start of Year, End of Year, End of Month, End of Quarter, End of Week, and -5Y. The 'Options' section includes checkboxes for 'Display Custom Header', 'Display Row Titles' (checked), 'Display Column Titles' (checked), 'Display Headings', and 'Transpose Data'. The 'Date Format' section has checkboxes for 'Yearly-Date' and 'Quarterly-Date'. The 'Auto Refresh' checkbox is checked. The formula bar at the bottom shows the generated formula: `=DSGRID("@AAPL,Q:SOLM,Q:SPRM,Q:VTE,Q:AIEP,Q:TAE,Q:UBBE,Q:KTBT","RI",-2Y,"",Daily,"RowHeader=true,ColHeader=true,DispSeriesDescription=true,YearlyTFormat=false,QuarterlyTFormat=false")`. The 'Insert' button is highlighted in orange.

Example: Frequency detail of each instrument can be found on the Frequency column to avoid mismatch of frequency while retrieving data. Also, it can be filtered on the left pane to search for specific frequency data.

The screenshot displays the Refinitiv Datastream Navigator interface. The search query is 'thailand gdp'. The left-hand 'REFINE SEARCH' pane shows filters for 'FREQUENCY' (with 'Quarterly' selected) and 'ADJUSTMENT' (with 'Constant prices, SA' selected). The main results table shows various instruments with their respective symbols, sources, and frequencies.

Name	Symbol	Hist.	Source	Frequency	Adjustment	Forecast
GDP	THGDP.D	1993	NESDB - Office of the National Economic and Social Development Board, Thailand	Quarterly	Constant prices, SA	Historical
IPD OF GDP	THGDIPI.D	1993	NESDB - Office of the National Economic and Social Development Board, Thailand	Quarterly	Price Index, not SA	Historical
CHANGES IN INVENTORIES	THINVCH.C	1993	NESDB - Office of the National Economic and Social Development Board, Thailand	Quarterly	Constant prices, not SA	Historical
GNI	THGNP.C	1993	NESDB - Office of the National Economic and Social Development Board, Thailand	Quarterly	Constant prices, not SA	Historical
EXPORTS OF GOODS & SERVICES	THEXNGS.D	1993	NESDB - Office of the National Economic and Social Development Board, Thailand	Quarterly	Constant prices, SA	Historical
IMPORTS OF GOODS & SERVICES	THIMNGS.D	1993	NESDB - Office of the National Economic and Social Development Board, Thailand	Quarterly	Constant prices, SA	Historical
GDP	THGDP.B	1993	NESDB - Office of the National Economic and Social Development Board, Thailand	Quarterly	Current prices, SA	Historical
CHANGES IN INVENTORIES	THINVCH.A	1993	NESDB - Office of the National Economic and Social Development Board, Thailand	Quarterly	Current prices, not SA	Historical
EXPORTS OF GOODS & SERVICES	THEXNGS.B	1993	NESDB - Office of the National Economic and Social Development Board, Thailand	Quarterly	Current prices, SA	Historical
IMPORTS OF GOODS & SERVICES	THIMNGS.B	1993	NESDB - Office of the National Economic and Social Development Board, Thailand	Quarterly	Current prices, SA	Historical
GDP CHAIN VOLUME MEASURES	THEIGDPY	1991	Bank of Thailand	Annual	Not SA	Historical
GDP CHAIN VOLUME MEASURES OF NON-FINANCIAL	THEIGDNY	1991	Bank of Thailand	Annual	Not SA	Historical

3. Design your display options, by checking the box of each item

The recommended items to choose for display are

- i. Display Row & Column titles
- ii. Display code
- iii. Display currency (currency by default will normally be local currency of those instruments)
- iv. Display latest value first (this will sort value to show latest period first)
- v. Hyperlink to Series Metadata (this will show link to open pop-up page with description of each instrument)

The screenshot shows the Refinitiv Datastream Formula Builder interface. The 'Options' section is highlighted with an orange box and contains the following settings:

- Display Custom Header
- Display Row Titles
- Display Column Titles
- Display Headings
- Transpose Data
- Display Code
- Display Currency
- Display Latest Value First
- Hyperlink To Series Metadata
- Hyperlink To Datatype Definition

Additional settings in the Options section:

- Display Expression: 1st Series, 1st Series & Description
- Date Format: Yearly-Date, Quarterly-Date
- Auto Refresh

The formula bar at the bottom displays the following formula:

```
=DSGRID("@AAPL,Q:SOLM,Q:SPRM,Q:VTE,Q:AIEP,Q:TAE,Q:UBBE,Q:KTBT","RI",-2Y,"";"Daily";"RowHeader=true;ColHeader=true;Code=true;Cum=true;LatestFirstValue=true;SeriesMetaDataLink=true;DispSeriesDescription=true;YearlyTSTFormat=false;QuarterlyTSTFormat=false")
```

4. Result of data retrieval

- i. Formula will be embedded on first cell that we selected before clicking “Datastream Formula” button (screenshot shows cell A1 with formula)
- ii. Formula can also be edited manually on the fx bar (same as normal Excel formula)
- iii. Or click “Datastream Formula” then edit detail from the pop-up window again

The screenshot displays the Microsoft Excel interface with the Datastream Formula ribbon active. The formula bar shows the following formula: `=@DSGRID("@AAPL,Q:SOLM,Q:SPRM,Q:VTE,Q:AIEP,Q:TAE,Q:UBBE,Q:KTBT","RI",-2Y","","D","RowHeader=true")`. The spreadsheet below contains the following data:

Name	PPLE - TOT R	SOLARTRON -	SUPER ENERG	META CORPO	AI ENERGY - T	THAI AGRO EN	UBON BIO ETH	KRUNG THAI BANK - TOT RETURN IND
Code	@AAPL(RI)	Q:SOLM(RI)	Q:SPRM(RI)	Q:VTE(RI)	Q:AIEP(RI)	Q:TAE(RI)	Q:UBBE(RI)	Q:KTBT(RI)
CURRENCY	US	TB	TB	TB	TB	TB	TB	TB
18-01-22	169087.5	16.37	204.51	33.01	178.73	64.88	112.62	364.8
17-01-22	172343.8	16.64	206.69	34.15	181.93	65.43	114.56	362.17
14-01-22	172343.8	16.64	204.51	33.01	184.34	64.88	114.56	364.8
13-01-22	171467.4	16.77	204.51	34.15	185.14	65.43	114.56	364.8
12-01-22	174793.4	17.04	204.51	33.01	184.34	65.43	115.53	364.8
11-01-22	174345.3	16.37	204.51	33.01	179.53	65.99	113.59	362.17
10-01-22	171467.4	16.64	206.69	32.44	178.73	64.32	111.65	362.17
07-01-22	171447.5	16.64	208.86	32.44	181.13	65.43	118.45	354.3
06-01-22	171278.3	19.32	206.69	32.44	177.92	65.99	116.5	354.3
05-01-22	174186	20.26	211.04	33.01	181.93	65.99	115.53	359.55
04-01-22	178945.9	20.26	206.69	31.87	177.12	64.32	112.62	354.3
03-01-22	181246.3	20.13	206.69	31.87	174.72	63.21	108.74	346.43
31-12-21	176824.9	20.13	206.69	31.87	174.72	63.21	108.74	346.43
30-12-21	177452.3	20.13	206.69	31.87	174.72	63.21	108.74	346.43
29-12-21	178627.3	19.86	204.51	30.73	173.92	63.21	107.77	349.05
28-12-21	178537.6	20.13	202.34	31.3	173.92	63.21	104.85	349.05
27-12-21	179573.3	20.53	204.51	31.87	172.31	63.21	107.77	338.55
24-12-21	175540.3	21.74	202.34	31.87	172.31	63.21	109.71	338.55
23-12-21	175540.3	22.41	204.51	31.87	174.72	62.66	109.71	338.55
22-12-21	174903	22.81	202.34	31.3	176.32	63.21	109.71	335.93
21-12-21	172264.1	23.21	204.51	30.73	177.12	62.66	106.8	333.31
20-12-21	169037.7	21.33	204.51	31.3	177.92	62.66	106.8	330.68
17-12-21	170421.9	20.93	204.51	33.01	181.13	63.77	108.74	338.55
16-12-21	171537.1	20.13	204.51	32.44	186.74	63.77	109.71	341.18
15-12-21	178547.6	20.8	204.51	32.44	184.34	62.66	107.77	325.43
14-12-21	173598.5	19.32	202.34	33.01	184.34	63.21	110.68	328.06
13-12-21	175002.6	19.59	204.51	33.01	184.34	63.21	109.71	328.06
10-12-21	178697	19.72	206.69	33.01	179.53	63.21	110.68	325.43
09-12-21	173827.5	19.72	206.69	33.01	179.53	63.21	110.68	325.43
08-12-21	174345.3	20.13	206.69	32.44	181.13	62.66	105.83	328.06
07-12-21	170461.7	20.93	206.69	33.01	181.13	62.1	106.8	320.18
06-12-21	164626.3	20.93	206.69	32.44	180.33	62.66	101.94	304.44
03-12-21	161160.9	20.93	206.69	32.44	180.33	62.66	101.94	304.44
02-12-21	163072.8	20.93	204.51	32.44	180.33	62.66	102.91	307.06