Database Guide
Datastream

Introduction

Thomson Datastream Advance provides current and historical time series data on stocks, stock indices, bonds, futures, options, interest rates, commodities, derivatives, currencies, and economic data.

Scope

Global coverage. Depending on the series, most market data is available on a daily basis; and most economic data is available monthly or quarterly.

Access

Check out the binder containing a password and documentation at the Access Services Desk. Login to the computer and double-click the Datastream icon   **NOTE:** If no connection to database, right-click the small yellow "lightening bolt" in the bottom right corner, then click **Connect Now**.

Features

- Results easily downloadable to Excel, Word, or PowerPoint
- Simplified search for data series and datatypes through Navigator
- **Interactive Charting** and **Help Browse** tools in Navigator for data series mnemonics search
- Excel Add-in **Datastream-AFO** (Advance for Office) for running complex searches directly in Excel

Searching Datastream Advance – Creating a Request

Datastream **Request** page, shown below, is divided into areas where you set your selections, run searches, and view results. The output results come in report, graph, or data format depending on your preference and type of values. The key feature for data searching is the Datastream **Navigator.** Datastream provides two types of Navigator:

- **Navigator** for data series searches, e.g. for finding specific securities such as equities, indices etc. and
- **Datatype Navigator** for finding specific financial data items, e.g. prices, market values etc.

Create search request in five steps:

Step 1: In the **Data Category** window, select a category from the list.

Step 2: Select data series using **Data Series Navigator**: click the category or hold your mouse over the selected category to display a direct link to **Navigator (Criteria Search)**, or click the **Search** button next to the **Enter Series** box in the **Search** window.

Step 3: In the **Analysis** window, select the request type for your data series, e.g. preformatted report, chart, table etc.
Step 4: In the **Settings** window, refine your selections by setting dates, frequency, datatype, and currency as applicable. Use **Datatype Navigator** for selecting financial or economic data items.

Step 5: Click the **Run Now** button and view results in the **Output window.** Save or download results in Excel, Word, or PowerPoint by selecting **Tools** > **Transfer** option from the top menu bar.

Selecting a Category and Choosing Data Series

Datastream series is a particular set of financial data over time, e.g. equities, bonds, indices etc. All Datastream series are grouped into 18 data categories accessible in the **Data Category** window.

- From the list in the Data Category window, select a category. By selecting a category, you gain access to all financial information for each data series which constitute a category. For examples, in Equities, individual public companies represent the data series.

- Select a data series pertaining to the category by any of the following methods:

Using Navigator:

For quick access to the Navigator click or mouse over the selected data category to display quick links to series search options as shown on the right. To access Navigator, click on the **Criteria Search** link.

Other methods of using the Navigator include the following:

- **Navigator Quick Search** - enter a keyword (name of the series, e.g. company name, index name etc.) in the **Enter Series** text box and click the Search button. On the results page, click the **Name,** or **DS Mnemonic,** or **DS code** to select a data series.

- **Navigator Power Search** - click the Search button next to the **Enter Series** text box. On the new **Navigator Series Search** page, enter your criteria in any number of the available fields. Click the button to select series from the list where available. After you've entered your criteria, click the **Search** button at the top of the page or press **Enter**. On the results page, click the **Name,** or **DS Mnemonic,** or **DS code** to select a series.

- **Navigator Drill Search** - click the Search button. On the new **Navigator Series Search** page, click on the Explorer link at the top of the Navigator page. In a new window, you can drill-down to the data series you are looking for.
  NOTE: The Navigator Drill search is available only with selected data categories.

- **Help Browse Search** – open the **Navigator** page by clicking the **Search** button next to the **Enter Series** text box. Click on the **Help Browse** link on the top menu bar to find data series mnemonic via drill down search. This option is available for selected categories only such as: Constituent Lists, Equity Indices and Bond Indices, Exchange Rates and Interest Rates, Futures and Options, Economics and Commodities.

To select **multiple series** from the Navigator result page, click the check box for each series or select all results on the page by clicking the top check box in the **Name** heading cel. Once you've selected the series, click on the **Use Selected** link which appears next to the top check box after you've checkmarked any series on the list as shown on the right.

Other methods for series search:

- **Mnemonic search** - click the **Expert entry** check box, and enter DS mnemonic in the **Enter Series** box, e.g. *U:GE*. The series mnemonic appears in the **Name** box.

- **Using Recent Series Search** - click on the arrow in the **Enter Series** box to open a drop-down list and select data series from your previous requests. The **Expert** check box should be checked if you select a mnemonic.

Selecting Request Type

In the **Analysis** window, shown on the right, select the request type, e.g. report, chart, time series table etc. from close to 100 different report formats. The menu of output reports vary by data category and series selection.

Following is the description of selected request types:

Single Series – Overview - a menu of preformatted reports available for most of the data categories: equity, commodity, warrant, trust, and bonds; also includes I/B/E/S forecast and valuation reports.

Multiple Series / Flexible Chart - a menu of templates which lets you create comparative data reports and built charts for multiple series across different data categories e.g. compare a company's performance against an index.

Single Series – Data - a tool which lets you create time series, static, or company accounts data reports in spreadsheet format. You can run historical time series reports, such as company stock prices for the period of up-to past 20 years. Data availability varies by series. All Data reports can be exported directly to Excel.

Codes and Information - a function which lets you search for information on "dead stocks". For dead companied data, you should search by series mnemonics only. Check the **Expert** check box. Click the **Navigator** [Search] to find series. For dead series, on the Navigator search page, check the check box next to **Dead** [☑ Dead] selection in the **Status** category. On the result list click on the **DS Mnemonic**. The mnemonic will open in the **Enter Series** box. Additionally, you can choose an option to run reports in German or French.

Refining Request

In the **Settings** window, you can refine your request by selecting frequency for time series requests, dates, datatype, and currency as applicable. **NOTE:** The contents of the **Settings** vary by data series and request type.

Click here to select a fixed date or a date range

Select relative dates here

Select currency here

When this button is enabled, click to select additional options. For Time Series Data, click here to select **frequency.**

Click here to run search

Settings: When the **Settings** button is enabled, you can refine your search for **charts** and **data requests** by selecting additional criteria from the available options.
- For **Time Series** requests such as stock prices, click **Settings** to select **frequency:** daily, weekly, monthly, quarterly, or yearly
- For **Static Data,** click **Settings** to select the datatype

Dates: Select time period by using one of the following options:
- Select relative dates (-1Y, -10Y, -6M etc.) displayed in the Settings window
- Click the [Time Period] button to select a fixed date, or a date range, or a relative date not available for quick selection, e.g. -12Y.

Currency: from the drop-down list in the **Currency** box, select the applicable currency

Datatype: Datatype defines the type of data, e.g. prices, beta, volume etc. The default datatype for equities is **Price (Adjusted)**. Use **Datatype Navigator** to select datatypes for your request. To open the Datatype Navigator, click the **Search** button next to the **Datatype** box located in the **Search** window.

On the **Datatype Search** page, shown on the right, datatypes are grouped by types and sources. On the bar below the search text boxes, you can select a type of data, e.g. **Static, Time Series**, etc. In the window on the left, you can select a source of datatype such as **Key Datatypes**, or **MSCI**, or **Datastream** etc. To broaden you search, select **All** in both or either category. Use the **Find** box to search for data item as follows:

Click the "book" icon to view datatype description

1. Enter keyword in the **Find > (Name) > (Contains)** text box. Click **Filter/Search.**
2. Click on the mnemonic link from the list of matching entries to add a datatype to your request.

Running Requests and Obtaining Results

Click the [Run Now!] button located in the **Settings** window. Your search results: graphs, reports, or data will open in the **Output** window. The figure below shows the Output window with the displayed **Annotation toolbar.**

Annotations toolbar

Annotations toolbar

Click here to maximize or minimize the Output window

You can resize the Output window by clicking the arrow in the lower right corner. You can also add text annotations or graphics to the resulting report, e.g. highlight text, insert comments, arrows etc. before you save your report in Word or PowerPoint.

To display/hide **Annotations toolbar**, click the [A] icon from the top icon toolbar or select from the top menu:
Tools > Display Annotation Toolbar.
Saving and exporting results: Click the Excel [icon] icon from the top icon bar to export results to Excel. To save results in Excel, Word, or PowerPoint, from the top menu, select **Tools>Transfer> Excel (or Word or Powerpoint)**

## Equity Screening – Creating Equities List

You can create a custom set of equities and save the same set as a list for creating quires directly in Excel using **Datastream AFO** (Excel Add-In). To create an equity set, do the following:

1. Click the **Equity Screening** tab at the bottom of the Request page (or click the **Equity Screening** in the **Analysis** window on the **Request** page). In the new window, click the **New Search** button in the lower right corner.
2. Select country. You can add up to 10 selections by choosing individual countries in the **Country Codes** window or by selecting regions from the **Composite Code** drop-down list. Click the [+] after each selection. To select the entire universe, click the **Search By ALL** check box on the right. View selected criteria in the **Universe to Search** window on the right. To remove criteria, click on selection and then click the [−]. Click **Next**.
3. Select criteria:
   - Under **Datatype and Limitation** tab, select financial criteria e.g. price, P/E ratio etc. To find data items, open the Datatype Navigator by clicking the **Search** button. You can select multiple data items. Specify value of each data selection in the **Limitation** fields as applicable. Click the [+] after each selection. To remove criteria, click on selection and then click the [−].
   - Under **Industry & Sector Mnemonics** tab, select industries. Click the [+] after each selection. To remove criteria, click on selection and then click the [−].
   - Under **Sort Order & Currency** tab, select the sort order and specify currency if needed.
4. Click **Search Now!**
5. Your custom list opens in a new window. Click the **Save As List** button. In a new window, click the **Allow Search List & Result to be Refreshed** check box; add list description. Click the **Upload**. Your list will be stored in Datastream service, and will be retrivable in Datastream AFO.

Creating Lists of Securities

Click the **List Wizard** [icon] icon on the top icon menu or from the top menu select
Tools > List Wizard.

Navigator button

1. In the new window, similar to the one shown on the right, select a **Data Category** and then use the **Series Navigator** to find and add securities. To add multiple securities from the result page, checkmark the boxes next to selected securities and then click on the **Use Selected** link above. Or you can click the security's mnemonic and add securities one by one. Click **Next**.
2. In the next window, edit **List Description** (optional) and select the **Save** option, e.g. **Save as Local List and upload to Datastream as a User List.** Click **Finish**.
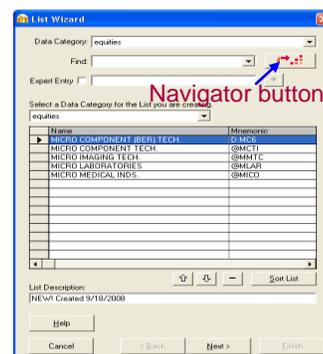
Using the Request Table

If you need to transfer large amounts of data from Datastream once or on a regular basis for the same series, use the **Request Table** template built into **Datastream-AFO**, Excel Add-In component of Datastream. To perform a Time Series search using Request Table, follow these steps:

Watch a tutorial

1. Open Excel. In Office 2007, click on the **Add-Ins** tab, then select
   Datastream-AFO > Request Table > New Request Table.
2. In the new window select **Yes** or **No**. Select location if you shoose to save your Request Table.
3. Enter designation at top of each column. To add designation, click on the column label. Your selection will appear in the top cell of each column (except for the Data Destination column). To add designation to more than one row in each column, first place your cursor in the empty cell of the selected row, and then click on the column label.

   Enter designations respectively as follows:
   - In **Update** column – select **YES**
   - In **Request Type** column – select **TSL** (**T**ime **S**eries **L**ist –this selection lets you add securities and user-created lists in the same search)
     NOTE: Other Request Type formats: **S** – **S**tatic request, **TS** – **T**ime **S**eries request, **CAF** – **C**ompany **A**ccounts **F**ormats request, **CH** – charts.

- In **Format** column –click the check boxes in the pop-up window: **Row Titles**, **Column Titles**, and **Headings**. Alternatively, you can just enter **HRC** in the top cell.
- In **Series Lookup** column – add securities by any or by a combination of the following methods:
  - Click the **Series Navigator** button to select securities; you can add multiple securities; multiple securities are separated by comma; or select multiple securities on the Navigator result page and then click on the **Use Selected** link which appears in the **Name** box on the right after you checkmark any box on the list.
  - Click the **List Picker** button to add previously created list either local or the list saved in Datastream Services
  - Create a new list in Excel using the **List Wizard** from **Datastream-AFO >Tools > List Wizard.** Or select **Datastream-AFO >Tools > Create List (from range)**. With the latter option, you can create and save a DS list from your list of tickers (without DS prefixes) in Excel spreadsheet. You can also use List Wizard to add the previously saved lists.
  - Cut and paste your own list of securities with Datastream prefixes, e.g. U:GM
- In **Datatype** column – leave the field blank for default selection (adjusted stock price), or click the **Datatype Navigator** button to select a different datatype or multiple datatypes.
- In **Start Date**-**End Date** columns - enter the date range or enter the relative date, e.g. -1Y.
- In **Freq** column - select frequency from the drop-down list.
- **NOTE:** For definitions of available data formats, click the red arrow in the top right corner of label cells where available.
- In **Data Destination** column - place the cursor in top empty cell. Click the **Data Destination** label. A pop-up **Create Destination Reference** window opens. Important: Do not close the window; just proceed.
  - a. Click on any cell where you want the results to appear, e.g. a new worksheet, or previously saved Excel file, or any cell on the active worksheet. The cell coordinates appear in the pop-up window.
  - b. Click **OK** on the pop-up window; the destination cell coordinates appear in the top cell of the **Data Destination** column.
3. Click the **Process Table** button. Requested data will populate your spreadsheet. If you use an unsaved worksheet, save the results as a file if you need to refresh data in the future.

Searching Tips:

- For data series with a term less than one year, e.g. 90-dayTreasury Bills, use the category **Interest Rate**; for data categories with a term over one year, use category **Bond indices**, e.g. Us Government Bond Series 10 Year
- Use **Help Browse** link on the Navigator screen to search for datatype mnemonic. Alternately, use top menu option: **View>Diagnostics>Show Interactive Terminal**. At the prompt, enter **HELP <Enter>**

Sample Searches

Historical Stock Prices: Find the daily stock prices for Genentech for the past five years.

1. In the **Data Category** window, select **Equities. (**Disregard the pop-up window with quick links for this sample).
2. In the top **Search** window on the right, enter **genentech** in the **Enter Series** text box. Click the **Search** button next to the **Enter Series** text box.
3. From the list of matching companies, click on the **Genentech** link (or click the **U:DNA** mnemonic).
4. On the left-hand side, in the **Analysis** window, click **Single Series – Data > Time Series Data.**
5. In the top right corner, click the **Settings** button. Move the frequency bar to daily. Click **OK**.
6. In the top **Settings** window on the right, select **–5Y** to get the daily rate for the last 5 years.
7. Click the **Run Now**. The results will display in the **Output** Window.
8. View, print or export the results.

Dead companies' information: Find stock prices for companies no longer traded.

1. In the **Data Category** window, select **Equities > Criteria Search**. That will open the **Datastream Navigator** page.
2. On the Datastream Navigator page, confirm that the data category is set to **Equities**.
3. In the **Status** category, check the check box next to **Dead** and uncheck the box next to **Active** if needed; enter all other known criteria as appropriate. Click the **Search** button at the top of the page.
4. Select the company name. **NOTE:** Before selecting a company, scroll to the right to view which data is available for a dead series.
5. On the left-hand side, in the **Analysis** window, click **Single Series – Data > Time Series Data.**
6. In the top right corner, click the **Settings** button. Move the frequency bar to **Daily**. Click **OK**.
7. In the top **Settings** window on the right, select date, e.g. **–20** for the maximum coverage if the dates are not known.
8. Click the **Run Now**. The results will display in the Output Window.
9. View, print or export the results.

Economic Data using Advance for Office (AFO) for downloading multiple series: Find daily rates over the past year for the following: for 90-day Treasury Bills, Fed Funds, and 6-month LIBOR.

1. Open Excel. On the top menu, click the **Add-Ins** tab; then select **Datastream-AFO > Time Series Request**.
2. In the **Time Series Request** window, enter **–1Y** in **Start** date, select **Daily** in **Freq**[uency]; click the following options: **Display Row Titles**, **Display Column Titles**, **Display Headings**, **Display Currency**, **Embed**, and **Visible Button** as applied.
3. Click the **Navigator** button. On the Navigator page next to **Data Category** at the top, click the ▶ and select **Interest rates** if not selected already.
4. From the top menu bar on the Navigator page, click on the **Help Browse** link. The Help menu screen will open. **NOTE:** Click the **Home** at the bottom of the screen if the first page does not display.
5. Follow the menu choices to find data series mnemonics. For example, to find the 90-day Treasury Bill mnemonic, do the following:
   > From the main menu, under **National Interest Rates** double click option **2 >** double click **26** for **USA** > scroll down the screen to **Interest rates: United States Government securities: Treasury bills, secondary market, discount basis** category and double click **FRTBS3M** mnemonic for 90 days (3 months) T-bills. Click **Finish**.
6. In the **Time Series Request** window, click **Submit**. Data will automatically populate the Excel spreadsheet.
7. Position your cursor in the free cell and repeat the same process as described in the previous step for Fed Funds rate (**USFEDFD**), and 6-month LIBOR (**BBUSD6M**).
8. View, print, or save the results.

NOTE: If you know the mnemonics for your data series you can enter the **mnemonic codes**, separated by a comma, e.g. (USTBL3M, USFEDFD, BBUSD6M), in the **Series/Lists** field in the **Time Series Request** window. Then click **Submit.**

Exchange Rates: Find the daily exchange rates between Indian Rupee and U.S. Dollar for the past year.

1. In the **Data Category**, select **Exchange rates**. (Disregard the pop-up window with quick links for this sample).
2. In the top **Search** window on the left, enter **indian** in the **Enter Series** text box. Click the **Search** button next to the **Enter Series** text box. .
10. Scroll to **Indian Rupee to US$** and click it (or click the **USINDNR** mnemonic).
11. On the left-hand side, in the Analysis window, click Single Series – Data > Time Series Data.
12. In the top right corner, click the **Settings** button. Move the frequency bar to **Daily**. Click **OK**.
13. In the top **Settings** window on the right, select **–1Y** to get the daily rate for the past year.
14. Click the **Run Now**. The results will display in the Output Window.
15. View, print or export the results

Commodity Prices: Find weekly prices for shelled almonds for the past 90 days.

1. In the **Data Category**, select **Commodities**. (Disregard the pop-up window with quick links for this sample).
2. In the top **Search** window on the left, enter **almond** in the **Enter Series** text box. Click the **Search** button next to the **Enter Series** text box.
3. Click the **Almonds-US Standard Run** (or click the **ALMUSSS** mnemonic).
4. On the left-hand side, in the **Analysis** window, click **Single Series – Data > Time Series Data**.
5. In the top right corner, click the **Settings** button. Move the frequency bar to **Weekly**. Click **OK**.
6. In the top **Settings** window on the right, select **–3M** to get the weekly data for the last 90 days.
7. Click the **Run Now**. The results will display in the Output Window.
8. View, print or export the results.

Compare One or More Data Series. Create a chart to compare stock prices for Genentech and GlaxoSmithKine for the past five years.

1. On the left-hand side, in the **Analysis** window, select **Multiple Series / Flexible Chart > Comparison Line Chart > Rebased**.
2. Above the **Analysis** window, in the **Data Category** window, select **Equities.** (Disregard the pop-up window with quick links for this sample).
3. In the top **Search** window on the left, enter **genentech** in the **Enter Series** text box. Click the **Search** button next to the **Enter Series** text box.
4. From the list of matching companies, click on the **Genentech** link (or click the **U:DNA** mnemonic).
5. From the icon bar below the **Analysis** window, click the **+** button to add the first company to your list.
3. Repeat steps 3-4 for **GlaxoSmithKline**.
4. In the top **Settings** window on the right, select the **–5Y** button.
5. Click the **Run Now.** The result will appear in the Output Window.
6. View, print or export the results.

Index Performance Report: Find the dividend yield and market value for the FTSE100.

1. In the **Data Category**, select **Constituent lists**. (Disregard the pop-up window with quick links for this sample).
2. In the top **Search** window on the left, enter **ftse 100** in the **Enter Series** text box. Click the **Search** button next to the **Enter Series** text box.
3. Scroll to **FTSE 100 Constituents** and select it (or click the **LFTSE100** mnemonic).
4. On the left-hand side, in the **Analysis** window, click the **List of Series -Summary > Static Data**.
5. In the top right corner, click the **Settings** button. Click the **Datatype Navigator** 🔍 button.
6. In the lower bar at the top, In **Datatype**, select **All**;in **Find**, select **Name > Contains** and enter **dividend** in the text box. Click the **Filter /Search.**
7. Click the **Dividend yield** (or click **DY** mnemonic)**.**
8. Repeat steps **6-7** for **market value**. Click **OK**.
9. Click the **Run Now.**
6. View, print or export the results.

Printing & Downloading

- With search results displayed in the Data Output window, you can print or download your output results
- **To print output results:** Select **File** > **Print** from the top menu bar
- **To save project:** Select **File > Save (**or **Save As)** from the top menu bar or click on the **Save** 🖫 icon on the top icon bar
- To save results in Excel, Word, or PowerPoint: Click the Excel icon from the toolbar 📊, *or* from the top menu, select **Tools > Export**, *or* select **Tools** > **Transfer** > **Excel** (or **Word** or **PowerPoint**)

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