THOMSON REUTERS

EIKON™

SCREENER GUIDE

January 2015

THOMSON REUTERS

CONTENTS

USING SCREENER

TABLE OF CONTENTS

Key updates this release

NEW LOOK AND FEEL	Updated screenshots and procedures
PRIVATE COMPANY SCREENING	Screen on private companies. See "Private companies" on page 10.
NEW ADVANCED SETTINGS	• Adjust the font size for optimum comfort. See "How to increase or decrease the font" on page 16. • View an aggregate summary metric for each column. See "How to display column totals" on page 17.
RANK COMPANIES BASED ON MULTIPLE FACTORS	Sort good and bad candidates by ranking the securities in your universe based on a set of weighted factors. See "How to rank securities" on page 23.

Coming soon

COMBINED PUBLIC-PRIVATE COMPANY SCREENING	Screen on a mix universe of both private and public companies.
OWNERSHIP SCREENING	Screen for funds, firms, and/or persons.

FREQUENTLY ASKED QUESTIONS

- How do I quickly create a screen?
- How do I create an OR filter?
- How do I create a lower/greater than filter?
- How do I load a saved screen?
- How do I screen on Shariah-compliant companies?
- How do I screen on dates?
- How do I screen on cities?
- How do I screen on top/bottom companies?

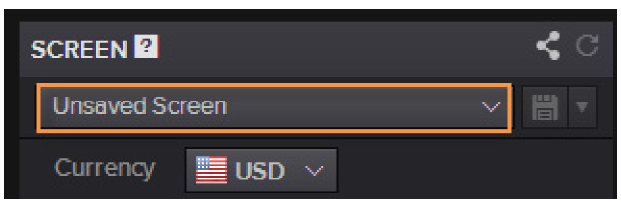
How do I quickly create a screen?

A screen consists of a universe of securities, a currency, and a set of data item filters.

To create a screen, you can either use one of the prebuilt samples, or start from scratch based on an index, portfolio or watchlist you may have.

ⓘ Currently, you cannot transfer an existing screen from the old Equity Screener to the new Screener App.

1 Click the *Unsaved Screen* drop-down list in the left pane, and choose:
- *Create New Screen* to start a screen from scratch
- a prebuilt screen from *SAMPLE SCREENS*



2 Select a currency.

3 Customize the starting universe, which is set to *Active, Public, Primary* by default.
For example, you can expand this universe to inactive companies or all issues for a given company, or switch to private companies.

4 To populate the universe with an index, portfolio, or watchlist:
- In *Include*, click *Edit > Choose Inclusions*, and type the name of your list. You can select any combination of indices, portfolios, and/or watchlists as the starting universe.
- In *Exclude*, click *Edit*, and type the name of a list that you already own or that is not part of your mandate to reduce the universe to investable equities.

5 Click *ADD* in the *QUICK FILTERS* section to pick from among the most popular data items, or type the name of a data item over *New filter*. For example, type *EBITDA*.

Tip: Click beside the *New filter* field to open the full data item library. See also "Using the Universal Data Item Picker" on page 18.

To select a data item or a value, you can either click it or press `Tab` on your keyboard.

6 Define the parameters of the data item, and click *DONE*.

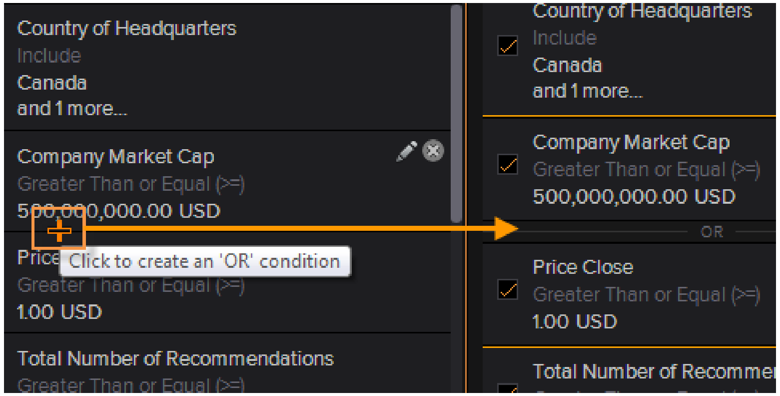
7 Repeat steps 5 and 6 to add new filters until you are satisfied with the results.
The result set can contain up to 5,000 securities.

8 Click *Done* or press `Enter` on your keyboard to apply the filter.
The data items you select are automatically displayed in the report grid on the right.
You can now save the screen. See "How to save a screen" on page 13.

How do I create an OR filter?

Combining two filters creates an “OR” condition, so that equities pass the screen if they pass either of the two filters set.

1. In the filter pane, point your mouse cursor between two filters until the cursor changes to and click in the message that appears.



2. Repeat step 1 to create as many OR conditions as you want.

How do I create a lower/greater than filter?

You can create a filter that requires a company to have a percentage value lower or greater than a given benchmark. The procedure below shows how to screen on companies with total revenue 20% greater than the median revenue among companies within the same TRBC industry.

1. In the *New filter* field, type `revenue`, and select *Total Revenue* from the Autosuggest list.
2. Select >, move the cursor of the histogram chart until you reach 20%, then click to define the percentile criteria in the Universal Data Item Picker.
3. In the Universal Data Item Picker, select:
   - *Parameters > Series*
   - *QUICK FUNCTIONS > Trend > Median*
   - *Group Analytic > Grouping by > Industry > TRBC > TRBC Industry*
4. Click *OK* and *Done*.

How do I load a saved screen?

Screens are saved on the Thomson Reuters Eikon Cloud, allowing you to access them from wherever you are and from different computers. To use one of your saved screens, follow this procedure:

1. Click the *Unsaved Screen* drop-down list in the left pane, and select one of your personal screens.
   The *PERSONAL SCREENS* section lists the last ten saved screens you have used. If the screen you want is not listed, click *View and Manage All Screens* and go to step 2.
2. In *SCREEN LOADER*, select a screen and click *Load*.

ⓘ Currently, you cannot load a saved screen from the old Equity Screener to the new Screener App.

How do I screen on Shariah-compliant companies?

1. In the filter pane on the left, type `shariah` over the *New filter* field, and select *Shariah Compliant Flag*.
   The default item parameters are equal (=) *true*.
2. Click *Done*.

How do I screen on dates?

1. Type `date` over the *New filter* field, and select the relevant data item from the Autosuggest list.
   For example, select *Expected Report Date*.
2. Define a date or a date range.
3. Click *Done*.

How do I screen on cities?

1. Type `city` over the *New filter* field, and select the relevant data item from the Autosuggest list.
   For example, select *City of Headquarters*.
2. Type the name of a city.
3. Click *Done*.

How do I screen on top/bottom companies?

The Rank and Percentile filters allow you to slice the universe by meaningful dimensions. The procedure below shows how to screen on companies with an average inventory days in the top decile within their respective TRBC industries.

1. In the *New filter* field, type `inventory`, and select *Average Inventory Days* from the Autosuggest list.
2. Click next to *Average Inventory Day*, and select *Group Analytic > Percentile* and *Grouping By > Industry > TRBC > TRBC Industry*
3. Click *OK*.
4. In *Select Operator*, select *In Top #* and type `10`.
5. Click *Done*.
   The resulting count is the number of companies that have passed all the previous filters, and are ranked in the top decile of their industries in terms of average inventory days.

ⓘ If more than one company has the same value for the data item on which you apply a top/bottom filter, the results will show a number of companies above the rank/percentile you chose. For example if two companies have the exact same average inventory days in their industry, then the decile filter will return 11 companies.

GETTING STARTED WITH SCREENER

In this topic

- How to access Screener
- How to bookmark Screener
- How to link Screener to other apps
- How to access Screener in Microsoft Excel
- Getting to know Screener
- Data sources
- Private companies

How to access Screener

You can access Screener by typing `screener` in the application Search box on the top left of your screen, and selecting *Screener - New* from the Autosuggest list.

Tip: Screener is also accessible from the App Library, by clicking > *App Library* and searching for `screener` without selecting any category.

How to bookmark Screener

To quickly find Screener, you can add it to your favorites by right-clicking anywhere in Screener or click on the app toolbar, and choose *Favorites > Add to Favorites*.

You can also add it to *My Apps*:

1. Click on the top left of your screen, and open the App Library.
2. In the search box located on top right of the App Library, type `screener`.
3. In the results list, click beside *SCREENER*.
   The Screener icon is now available from > *My Apps*.

   Tip: Select the icon, and drag it to the desired position in the list.

How to link Screener to other apps

You can link Screener to other apps so that they share data. Color-coded channels allow your apps to “tune-in” to the same data stream.

1. Open Screener and all the other apps you want to link.
2. In the top left of each app, click to choose the link channel.
3. Click the symbol of a security to pass its context on to the apps of the same channel.

How to access Screener in Microsoft Excel

Screener is fully integrated to Thomson Reuters Eikon - Microsoft Office.

1. In Microsoft Excel, open the *Thomson Reuters* tab and click *Log in*.
2. Click to start Screener.

Getting to know Screener

Screener is a flexible idea-generation tool that allows you to find securities in the investable universe that display certain characteristics and match your investment philosophy or style. You can create simple and sophisticated filters and ranks on a broad range of factors to identify new investment opportunities.

Fully integrated to Thomson Reuters Eikon - Microsoft Office, you can quickly export your screens to Microsoft Excel and refresh data without leaving the spreadsheet.

CREATE A SCREEN	The filter pane on the left allows you to define a universe of securities and use combined filters based on financial values, descriptions, and industry codes. Click to hide the filter pane and maximize the result display. See "Creating, Editing, and Sharing a Screen" on page 11.
ANALYZE THE REPORT	The report settings above the table allows you to choose data items, group securities, and create complex expressions as well as multi-factor rankings. You can save the report settings as a report template. See "Creating a Report and a Template" on page 15.
EXPORT TO A LIST OR SPREADSHEET	The export buttons on the top right of the table allow you to export some or all of the securities to a funded list you can then use in Thomson Reuters Portfolios And Lists, or to a Microsoft Excel spreadsheet. See "Exporting Results" on page 25.
SHARE YOUR SCREENS	Save your screens on the Eikon Cloud to make them available from wherever you are, and share them with your colleagues. "How to share screens" on page 14.

Data sources

Data used by Screener is sourced from Thomson Reuters next generation Analytics Data Cloud.

Private companies

SCREEN ON THE BIGGEST PRIVATE COMPANY UNIVERSE	• 4.5 Million companies • 2 Million companies with descriptions and industry codes • 1.5 Million companies with current revenue and employee figures
BUILD BETTER VALUATION MODELS	• 600,000 companies with three years of historical financial statements from 18 countries • 500 financial line items, ratios, and calculations

Due to varying market reporting standards, not all values are available for all companies.

CREATING, EDITING, AND SHARING A SCREEN

In this topic

How to create a screen

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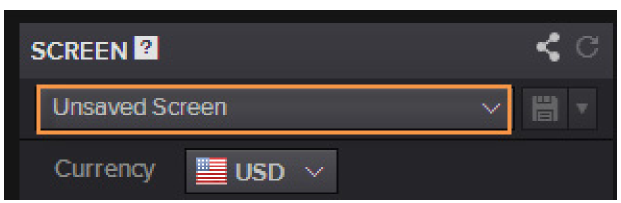


2. Select a currency.
3. Customize the starting universe, which is set to *Active, Public, Primary* by default.

   For example, you can expand this universe to inactive companies or all issues for a given company, or switch to private companies.
4. To populate the universe with an index, portfolio, or watchlist:
   - In *Include*, click *Edit > Choose Inclusions*, and type the name of your list. You can select any combination of indices, portfolios, and/or watchlists as the starting universe.
   - In *Exclude*, click *Edit*, and type the name of a list that you already own or that is not part of your mandate to reduce the universe to investable equities.

5. Click *ADD* in the *QUICK FILTERS* section to pick from among the most popular data items, or type the name of a data item over *New filter*. For example, type *EBITDA*.

   Tip: Click beside the *New filter* field to open the full data item library. See also "Using the Universal Data Item Picker" on page 18.

   To select a data item or a value, you can either click it or press `Tab` on your keyboard.
6. Define the parameters of the data item, and click *DONE*.
7. Repeat steps 5 and 6 to add new filters until you are satisfied with the results.

   The result set can contain up to 5,000 securities.
8. Click *Done* or press `Enter` on your keyboard to apply the filter.

   The data items you select are automatically displayed in the report grid on the right.

   You can now save the screen. See "How to save a screen" on page 13.

Quantitative and qualitative data items

Filters can be based on numbers (quantitative), or on descriptions (qualitative). The table below provides some examples:

QUANTITATIVE FILTERS	• market capitalization • revenue
QUALITATIVE FILTERS	• company country name • TRBC economic sectors

How to view the number of securities for each filter

In the filter pane, select *Counts* to display the number of securities retrieved for each filter.

ⓘ The filters work incrementally. For example, if the starting universe has 10 securities, and the first filter retains 8 out the 10 securities, the second filter applies to the 8 remaining securities, and so on for the next filters until the last filters which shows the companies that passed all the previous filters.

How to refresh a screen

Screens are automatically refreshed each time you add, remove, or change a filter.

You can also refresh your screen at any time by clicking .

Deprecated data items

Some of your screens may contain deprecated data items that are no longer used.

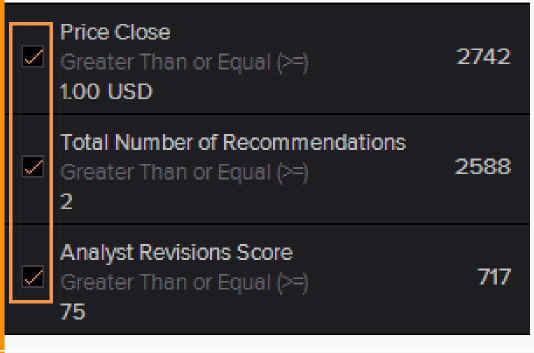
When you load them in the Screener App, a warning message is displayed to inform you that the deprecated items has been replaced by valid items.

Click *OK* to close the message.

How to edit, disable, or remove a filter

Follow these steps to edit, disable, or remove a filter:

<table>
<tr><td>EDIT</td><td>Double-click the filter in the left pane, or point your mouse cursor to the filter and click .</td></tr>
<tr><td>DISABLE</td><td>Clear the check box on the left of a filter.



</td></tr>
<tr><td>REMOVE</td><td>Point your mouse cursor to the filter you want to remove and click . You can also click, and with your mouse button pressed down, drag the filter out of the pane.</td></tr>
</table>

For information on how to delete a screen, see "How to rename and delete a saved screen" on page 14.

How to re-order filters

You can sort the order in which filters appear in the left pane.

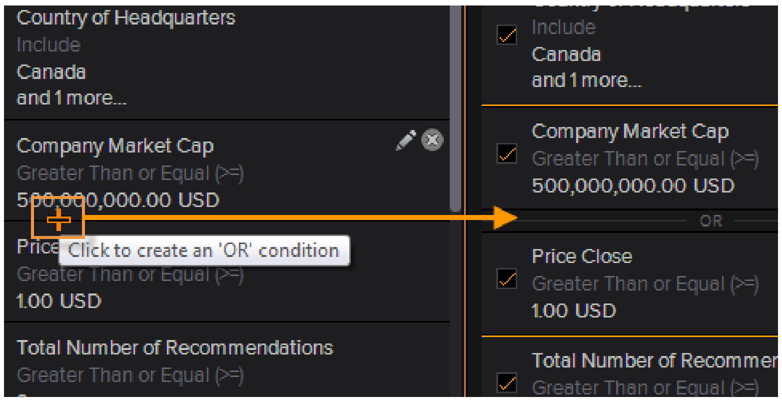
Important! Changing the order of your filters can change the results, if one of the filter uses a relative measure such as percentile rank in the set of equities already in your results.

- In the filter pane on the left, click a filter to select it, keep the mouse button pressed, and drag the filter up or down to the desired position.

How to create an OR condition between filters

Combining two filters creates an "OR" condition, so that equities pass the screen if they pass either of the two filters set.

1. In the filter pane, point your mouse cursor between two filters until the cursor changes to and click in the message that appears.

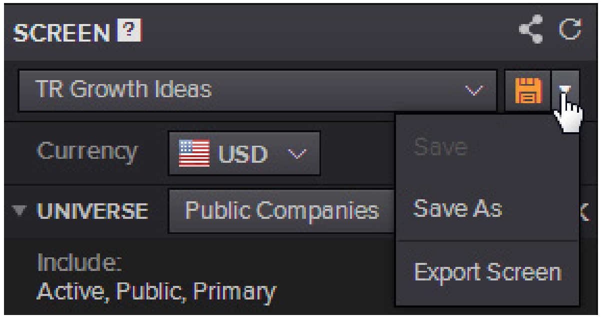


2. Repeat step 1 to create as many OR conditions as you want.

How to save a screen

You can save the changes you made to the universe and filters by clicking in the top of the left pane. This updates the current screen.

To save the changes as a new screen, click > *Save As*.



ⓘ You can also create a template of data items and expressions, which you can reuse on different screens. See "How to create a report template" on page 17.

How to load a saved screen

Screens are saved on the Thomson Reuters Eikon Cloud, allowing you to access them from wherever you are and from different computers. To use one of your saved screens, follow this procedure:

1. Click the *Unsaved Screen* drop-down list in the left pane, and select one of your personal screens.
   The *PERSONAL SCREENS* section lists the last ten screens you have used. If the screen you want is not listed, click *View and Manage All Screens* and go to step 2.
2. In *SCREEN LOADER*, select a screen and click *Load*.

ⓘ Currently, you cannot load a saved screen from the old Equity Screener to the new Screener App.

How to rename and delete a saved screen

You can rename or delete a screen you saved earlier.

1. Click the screen name in the left pane, and choose *View and Manage all Screens*.
2. In the Screen Manager, click *Object Manager*.
3. Click a screen to select it, and click the desired button on the right to rename, or delete the screen.
4. Click *Done*.

How to share screens

You can share a screen in two ways:

- send a snapshot via Thomson Reuters Eikon Messenger
- export the screen

MESSENGER	In the App toolbar, click > *Share with*. The recipient gets a snapshot of the app at the moment you send it as well as the app file itself in Messenger. This way they can see exactly what you were looking at when you decided to share. If your contact is offline they will receive it as soon they are online.
EXPORT	In the filter pane on the left, click > *Export Screen*. Then send the exported screen by email to allow the recipients to import the screen back into the Screener App. ⓘ To import the shared screen, save it on your computer, click the name of the current universe and choose *Import Screen*.

CREATING A REPORT AND A TEMPLATE

In this topic

- How to add data items
- How to display securities by groups
- How to view data item definitions
- How to add statistical factors
- How to remove a column
- How to sort, rearrange, and resize columns
- How to freeze a column
- How to edit or hide the parameters of a data item
- How to define the number of decimal places
- How to increase or decrease the font
- How to display column totals
- How to exclude and restore securities
- How to create a report template

How to add data items

By default, all the data items you add in the filter pane on the left are displayed in the report grid on the right. Additionally to these items, you can insert other data items on the fly in the report grid.

1. Click *Add Column*, and select a data item from the *UNIVERSAL DATA ITEM PICKER*.
2. Define the item parameters.
   See "Using the Universal Data Item Picker" on page 18.
3. Click *OK*.

How to display securities by groups

If you screen the equity universe using certain data items, such as: country of headquarter or of exchange, industry or sector name, you can group the securities by these items in the report grid.

1. In the report grid, click *Group*.
2. Select the *Enable Grouping* check box, and choose up to three classifications.
3. Click *OK*.
4. To remove the grouping without loosing its parameters, clear the *Enable Grouping* check box.

How to view data item definitions

To see a definition of the data displayed in the report columns, point your mouse cursor to a column heading, and click ?.

How to add statistical factors

In the report grid ( ), you can add a statistical factor for all data items.

Available factors are:

- sum
- average
- median

By default, the average is displayed at the bottom of the column heading. to display another metric, right-click a column heading, and select *Statistics > None*, *Sum*, or *Median*.

ⓘ The change applies to the chosen column only

How to remove a column

To remove a column, point your mouse cursor to a column heading and click .

How to sort, rearrange, and resize columns

Follow these steps to sort, rearrange, and resize columns:

SORT	Click the column heading.
MOVE	Click a column heading, then drag and drop it in the desired location.
RESIZE	Place your mouse cursor between two columns until it displays as ↔, and drag the edge of the column to reduce or increase the width.

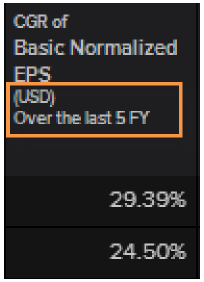
How to freeze a column

When the report contains many columns that extend beyond the width of your screen, you can freeze one or more columns so that they always appear on your screen as you scroll horizontally. By default, the *Identifier* and *Company Name* columns are frozen. Follow this procedure to freeze additional columns:

1. Right-click the heading of the column you want to freeze in position, and select *Pin Column*.
   The chosen column remains visible while you slide the other columns using the horizontal scroll bar.
2. Repeat the procedure for each column you want to freeze.

How to edit or hide the parameters of a data item

The parameters of a data item are displayed in the column heading. You can edit and hide them.



1. To edit the parameters of an item:
   - Right-click a column heading, and select *Edit*.
   - In the *UNIVERSAL DATA ITEM PICKER* dialog box, edit the parameters, and click *OK*.
2. To hide the parameters from the column heading:
   - Right-click the column heading, and select *Hide Parameters*.

How to define the number of decimal places

You can choose the number of decimal places you want to display.

- Right-click a column heading, select *Precision* and choose a number of decimal places.
  The change applies to the chosen column only.
  Tip: Point your mouse cursor to a figure in the grid to display the full decimal value.

How to increase or decrease the font

You can use a smaller font to view more data on one report page, or a bigger font for reading comfort.

The font size settings are available by clicking ⚙ > *Display Options*.

How to display column totals

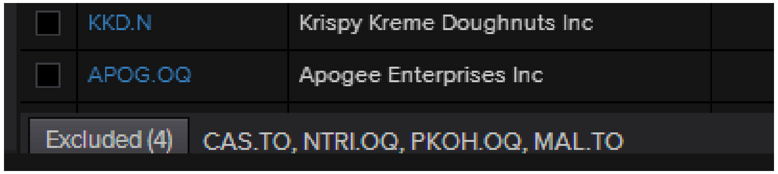
To view the totals for each data item columns in the report, click > *Show Summary Row*.

When you display securities by group, a total row is displayed for each group.

How to exclude and restore securities

As you analyze the results of a screen, you may identify outliers you want to exclude from consideration. To exclude securities from the grid, or restore them, follow this procedure:

1. In the grid view ( ), select the rows you want to exclude and right-click > *Exclude*.
   The excluded securities are listed in a row below the table.



2. To restore excluded securities:
   - Click *Excluded*.
   - Select the securities you want to restore.
   - Click *Include* and *Close*.

How to create a report template

A report template is a set of data items, expressions, and layout. You can use different templates, either prebuilt by Thomson Reuters or custom ones you create, to analyze a universe from various angles.

Templates are saved in the Thomson Reuters Eikon Cloud, so you can access them from any computer, including on Thomson Reuters Eikon - Web.

1. Customize a report.
2. Click > *Save As* beside *Unsaved Template*.
3. In *SAVE CHANGES*, select *Report Template* to create a new template.
   ⓘ The *Screen* option allows you to save changes you made to the screen universe and filters.
4. Click *Save*.
   The new template is now available from the *PERSONAL TEMPLATES* section of the dropdown list, and can be used with any screen.

USING THE UNIVERSAL DATA ITEM PICKER

In this topic

About the Universal Data Item Picker

The *UNIVERSAL DATA ITEM PICKER* is available by clicking ☰ next to *Add Column* or to a *New filter* field. It allows you to:

FIND DATA ITEMS	effortlessly through the search and autosuggest features, or by drilling down the Category list. The number of matching securities is displayed to the right of each data item. Only data items with matching securities are displayed.
DEFINE ITEM PARAMETERS	such as the period, for example
APPLY TRANSFORMATIONS	called quick functions, such as trend averages and percentage change
CREATE COMPLEX EXPRESSIONS	click *New Expression* to combine any number of existing data items and analytical functions.
GROUP ANALYTICS	use an aggregated value (median, weighted average, or market cap weighted average) of all companies the same industry, sector, or country.
RANK RESULTS	assign weights to a selection of data items in order to rank the securities in your universe

How to define advanced filter parameters

The *UNIVERSAL DATA ITEM PICKER* allows you to modify data item parameters, such as change the financial period for example. You can apply transformations (quick functions) to a data item. Transformations include: trend averages, percentage change, or aggregate functions such as industry medians.

1. Click next to *Add Column* or to a *New filter* field to open the *UNIVERSAL DATA ITEM PICKER*.
2. Type the name of a data item in the search box, or drill down the categories on the left, to select an item.

   Tip: You can sort the search results by alphabetical order or by relevance. Select *Relevance* to view the most frequently-used items on top of the result list.

   A definition of the currently selected item is available at the bottom of the dialog box.
3. Modify data item parameters:
   - Select *Series* to retrieve a time series of the data item for each company. If this check box is not selected, Screener retrieves one instance of the data item for each company.
   - Click *Show More* to define additional, less frequently used parameters.

   ⓘ The options available from the *Parameters* section vary depending on the data item selected.
4. Expand *Quick Functions*, and choose the relevant analytics:
   - *Absolute value* - to convert negative values to positive values
   - *% Change over* - to view the growth over the window of time you specify
   - *Net Change* - to view the absolute change value
   - *Trend* - to retrieve the average, median, minimum, maximum, compound growth rate (CGR), for example, over a time series
   - *Group Analytic* - to use an aggregated value (median, weighted average, or market cap weighted average) or a rank/percentile on all companies in the same industry, sector, or country.

   See "Quick Function example" on page 19.
5. Click *New Expression* to create an item by combining any number of existing items and analytical functions.

   Use this feature if the item you want is not listed among those available, and the *Quick Function* parameters do not provide the required level of flexibility.

   See "How to create expressions" on page 21.
6. Click *OK*.
7. Click *New MultiFactor Rank* to define weighted factors for ranking the securities of your universe.

   See "How to rank securities" on page 23.
8. Click *OK*.

Quick Function example

You can combine several analytics to create a data item function. For example, to calculate the average percentage change of the revenue year-on-year over the past three years, follow this procedure:

1. Click next to *Add Column* or to a *New filter* field to open the *UNIVERSAL DATA ITEM PICKER*.
2. In the *Category* list, type `Revenue` and choose the *Revenue* data item.

   Applicable parameters are displayed in the *Parameters* pane on the right.
3. In the *Parameters* area, choose *Series*, *Last*, *3* and *FY*.

   This selects the last three fiscal year revenue.

   See "Date syntax" on page 20 and "Financial period syntax" on page 20.
4. Select *% Change over*, and choose *1*.

   This function calculates the percentage year-on-year growth in revenue each year.
5. Select *Trend* and choose *Average*.

   This function averages out the three year-on-year revenue growth values.
6. Click *OK*.

Date syntax

This table provides a list of valid date syntaxes and examples.

In the syntax, replace [n] as follows:

- [n]=0 for the last period
- [n]=-1 for the previous period

DATE	SYNTAX	EXAMPLE	MEANING
Actual dates	YYYMMDD mm/YYYY	20140517 052014	 Calendar month end
Dates relative to Today	[n]D [n]AW [n]AM [n]AQ [n]AY	-7D -1AW -3AM -1AQ -2AY	7 days from today 1 week from today 3 months from today 1 quarter from today 2 years from today
Dates relative to the end of a window	[n]D [n]W [n]M [n]Q [n]Y	-7D -1W -4M -1Q -2Y	7 days from today 1 week from the end of last week 4 months from the end of last month 1 quarter from the end of last year 2 years from the end of last year
Absolute calendar dates	CY[YYYY] [q]CQ[YYYY] [s]SC[YYYY]	CY2014 2CQ2014 1SC2014	Calendar year end Calendar quarter end Calendar semi-annual end
Relative calendar dates	[n]CY [n]CQ [n]CS [n]CM	0CY 0CQ 0CS 0CM	Calendar year end Calendar quarter end Calendar semi-annual end Calendar month end

Financial period syntax

This table provides a list of valid financial period syntaxes and examples.

In the syntax, replace [n] as follows:

- [n]=0 for the last reported period
- [n]=-1 for the previous reported period
- n=1 for the next expected period (forward-looking fields)
- etc.

PERIOD	SYNTAX	EXAMPLE	MEANING
Absolute periods	FY[YYYY] CY[YYYY] [q]FQ[YYYY] [s]FS[YYYY]	FY2014 CY2014 3FQ2014 2FS2014	Fiscal year Calendar year Fiscal year/quarter Fiscal semi-annual
Relative periods	FY[n] FQ[n] FI[n] FS[n] CY[n]	FY0 FQ0 FI0 FS0 CY0	Fiscal year based on last reported year Fiscal quarter based on last reported quarter Fiscal interim based on last reported interim Fiscal interim based on last reported interim Calendar year based on the current year

How to create expressions

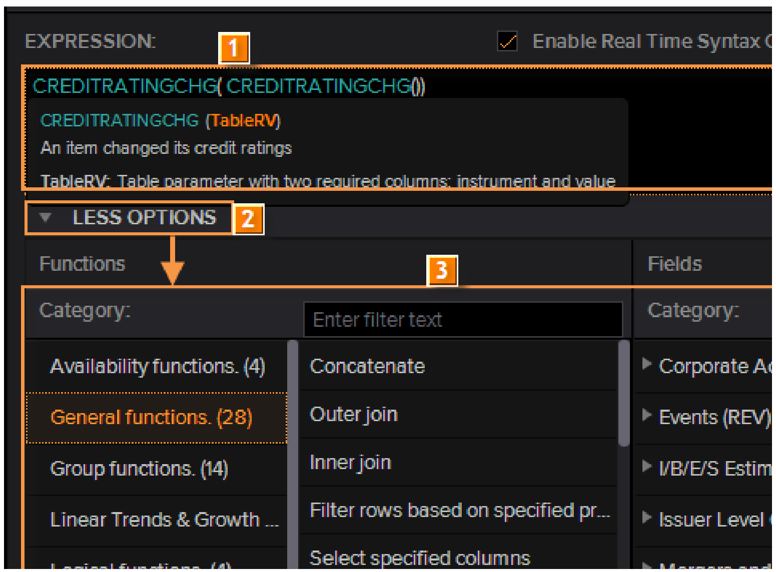
The *New Expression* builder allows you to create custom expressions combining any number of existing data items and analytical functions. Save the expression, and use it in a filter as any other standard data item. Use this feature if the item you want is not listed among those available, and the *Quick Function* parameters do not provide the required level of flexibility.

1 Click next to *Add Column* or to a *New filter* field to open the *UNIVERSAL DATA ITEM PICKER*.

2 Click *New Expression* on the bottom left of the dialog box.

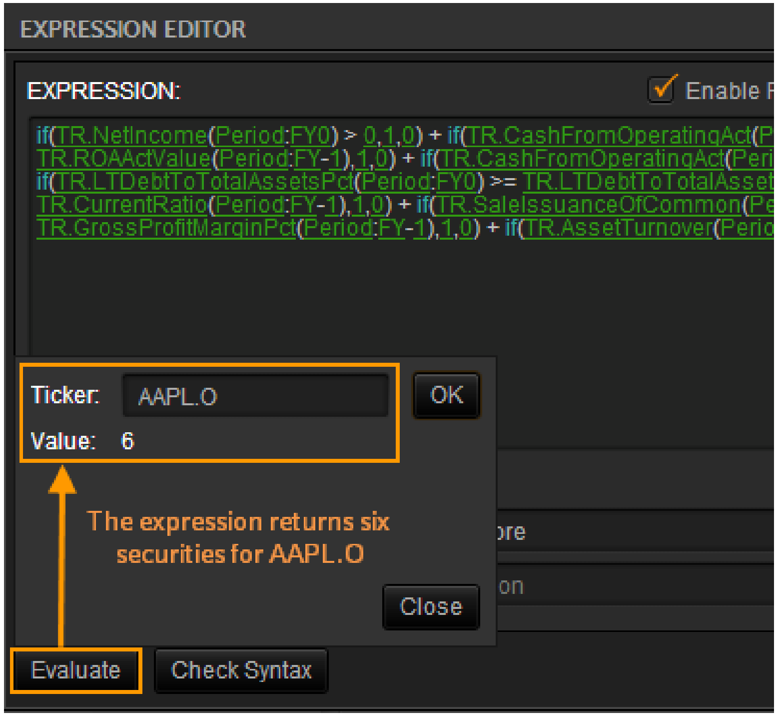
3 In *EXPRESSION EDITOR*, type an expression in the *EXPRESSION* box (1 in the illustration below), or click *More Options* (2) to choose functions and data items by double-clicking them in the list (3).

Tip: Click *Sample Expressions* to view an example of a correctly formed expression.



4 Select the *Enable Real Time Syntax Checking* option to verify the expression as you type.

5 Click *Evaluate*, and choose a ticker to check the result of the expression for the ticker.



6 In *Expression Name*, enter a name to identify the expression.

7 Click *OK* to close *EXPRESSION EDITOR*, and *OK* again to add the expression to the filter.

Your expression is now available in the UNIVERSAL DATA ITEM PICKER under the *Saved Expressions* category, and identified by the custom expression icon ( )

How to rename or delete an expression

You can rename and delete expressions you saved earlier.

1. Click the screen name in the left pane, and choose *View and Manage all Screens*.

2. Click *Object Manager > Personal Expressions*.

3. **Tip:** Select an expression and click the desired button to rename or delete it.

4. Click *Done*.

How to apply an aggregated value to a group of securities

You can create a filter that requires a company to have a percentage value lower or greater than a given benchmark. The procedure below shows how to screen on companies with total revenue 20% greater than the median revenue among companies within the same TRBC industry.

1. In the *New filter* field, type `revenue`, and select *Total Revenue* from the Autosuggest list.
2. Select >, move the cursor of the histogram chart until you reach 20%, then click to define the percentile criteria in the Universal Data Item Picker.

3. In the Universal Data Item Picker, select:
   - *Parameters > Series*
   - *QUICK FUNCTIONS > Trend > Median*
   - *Group Analytic > Grouping by > Industry > TRBC > TRBC Industry*
4. Click *OK* and *Done*.

How to rank securities

The *New MultiFactor Rank* builder allows you to assign weights to a selection of data items in order to rank the securities in your universe. Multifactor ranking is a linear combination of multiple factors. The formula applies weights to as many factors as you want, and returns a single number for each company, representing how the company ranks in multiple factors against companies in a chosen universe. This allows you to sort the best candidates from the worst candidates among the companies you have screened.

1. In the report grid, click *Add Rank* to open the *UNIVERSAL DATA ITEM PICKER*.
2. Click *New MultiFactor Rank* on the bottom left of the dialog box.
3. Choose a methodology and an order:
   - *Methodology* - choose a ranking scale (percentile 1-100, quartile 1-25, quintile 1-20, decile 1-10, absolute rank, or z-score)
   - *N-tile Order* - depending on the ranking scale you choose, set the value that represents the best and the worst result
4. Click *Advanced Options*, and choose:
   - *Rank Against* - by default, companies are ranked against each other in the same universe. You can rank them against a different universe, and find out how the would slot in another universe. For example, if you are looking at companies by market cap, you may want to check how they would slot into a particular index, even though they are not part of that index.
   - *Partition By* - to rank companies relative to their region, country, and/or industry. For example, choose *Industry > GICS > GICS Sector* to rank companies in your universe within each sector. If your universe comprises 35 companies, 10 in sector A and 25 in sector B, they will be ranked 1 to 10 for sector A, and 1 to 25 for sector B, treating each sector as a separate sub-universe.
5. Select factors, and set:
   - *Order* - choose the type of value that represents a good and a bad score
   - *If Not Available* - how to treat a security if a factor is not available
   - *Weight* - the relative weight to assign to each factor
   - *Raw* - select this option when you add a Starmine factor, and want to use the existing Starmine score as the rank for this factor

   ⓘ Assign numerical weights to your factors. If you change one weight, the others will be recalculated so that the total is always 100%.

   Tip: Click *Sample Ranks* to use a pre-built set of factors based on Starmine's alpha models.
6. Type a name for the ranking, and click *OK*.
   A new ranking column is added to the right of the report.
7. Click the *Show Factor Ranks* button above the table, and select the factors you want to as columns to the table.
   To view how companies rank on a particular factor, select the *Show Factor Rank* option.

VIEWING THE RESULTS IN A SCATTER PLOT

About the scatter plot

As you view a scatter plot of the results, you may identify outlier securities with data that is considerably higher or lower than that for the others in the group.

You can define the data item used for each axis, and the bubble size.

How to display the results as a scatter plot

To view the results of a screen as a scatter plot, click  in the top right corner of Screener.

How to define the axes

You can choose the data item to be displayed on each axis from all the data items defined in the grid view.

How to define the bubbles

You can choose the data item to be denoted by the bubble size.

Bubbles are located along the chosen axes, which allows you to:

- quickly gauge the correlation between the three chosen data items
- visualize clusters of securities with similar performance
- identify outliers

EXPORTING RESULTS

How to create a Microsoft Excel spreadsheet

You can export some or all of the securities to a new Microsoft Excel spreadsheet.

Important! To export a dynamic screen with all its filters to a spreadsheet, you must open it in Thomson Reuters Eikon - Microsoft Office.

1. In the report grid, select the rows you want to export.
2. Click , and select:
   - *Export Selected as Values* to export static data
   - *Export Selected as Formulas* to export dynamic data you can use in Thomson Reuters Eikon for Office

   The company name and RIC are automatically exported, as well as the data items and column headings included in the grid.
3. Click *Open* to view the spreadsheet where the securities have been exported.

How to export a screen to an existing Microsoft Excel spreadsheet

You can insert a screen into the cell of an existing Microsoft Excel spreadsheet.

1. Open your spreadsheet in Thomson Reuters Eikon - Microsoft Office.
2. Click to start Screener, and choose the screen you want to insert.
3. Click a cell in the spreadsheet, and click *Insert screen to cell* on the top left of Screener.
   The target cell now displays your screen, and the Screen App closes.

How to clear all selected rows

Click on the top left of the grid to clear all selected rows in one go.

How to create a list

You can add some or all of the securities to a watchlist or a funded list, and use them in other apps.

1. In the report grid, select the rows you want to export.
2. Click and select:
   - *Open All to Quote Object* to create a watchlist
   - *Add All to List* to create a portfolio

   Tip: To add the securities to an existing watchlist or portfolio, select the *Add to Existing* option.
3. In *Name*, type a name for the list.
4. Click *Save* and *OK*.
5. To use your list, click > *Portfolio Mgmt* > *Portfolios And Lists* > *My Portfolios*.

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CONTACT INFORMATION

For online help: https://customers.reuters.com/rph/mdwvs/sliver.aspx?topic=APPxSCREENER

For more information on training: http://training.thomsonreuters.com/eikon4/

Or contact your Thomson Reuters representative.

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