THOMSON REUTERS

EIKON™

EQUITY SCREENER GUIDE

JANUARY 2017

THOMSON REUTERS

CONTENTS

GETTING STARTED WITH SCREENER

In this topic

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* 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 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 Screener to start Screener.

BENEFITS OF 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 your desktop as well as Thomson Reuters Eikon - Microsoft Office, you can:

- quickly export your screens to Microsoft Excel and refresh data without leaving the spreadsheet
- create funded lists you can use in the Portfolios And Lists and other Apps once you are back in the office

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.

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*.

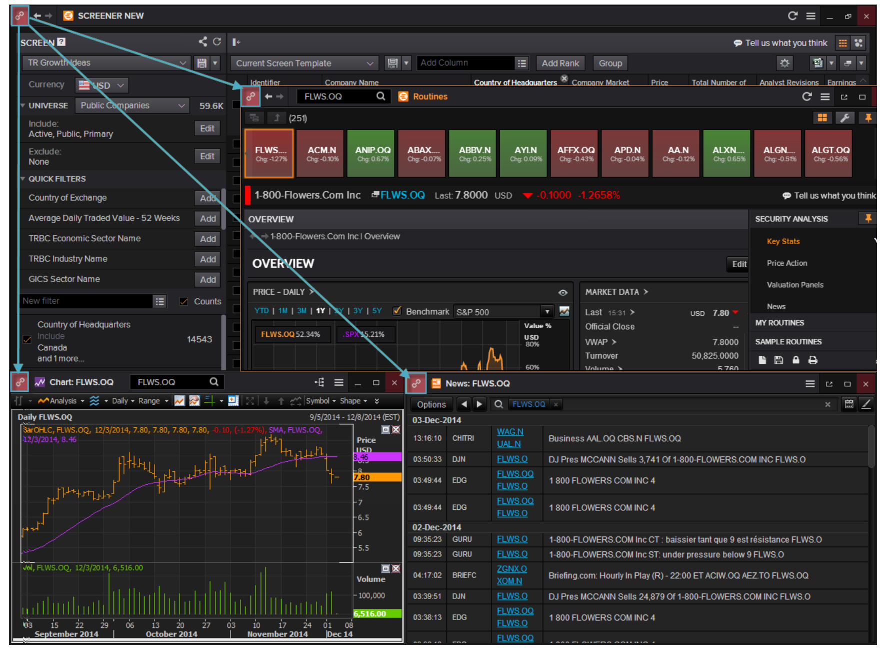
The Screener icon is now available from > *My Apps*.

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

HOW TO LINK SCREENER TO OTHER APPS

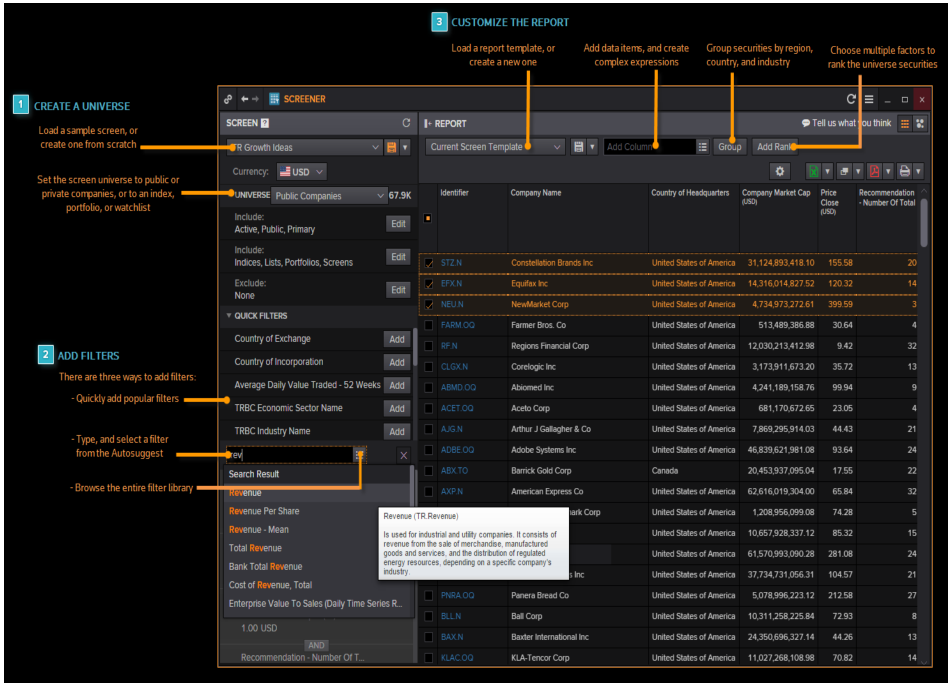
You can link Screener to other apps so that they share data. Color-coded channels allow your apps to "tune-in" to the same data stream.

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.



QUICK START TO SCREENER

Use the illustration and table below to get a quick run-through of the app's features.



Create a screen	The filter pane on the left allows you to define a universe of securities and choose filters. **Tip:** Click [icon] to hide the filter pane and maximize the result display. See Creating, Editing, and Sharing a Screen and Using the Universal Data Item Picker.
Analyze the report	The report settings above the table area 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.
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.
Share your screens	Save your screens on the Eikon Cloud to make them available from wherever you are, and share them with your colleagues. See How to share screens.

CREATING, EDITING, AND SHARING A SCREEN

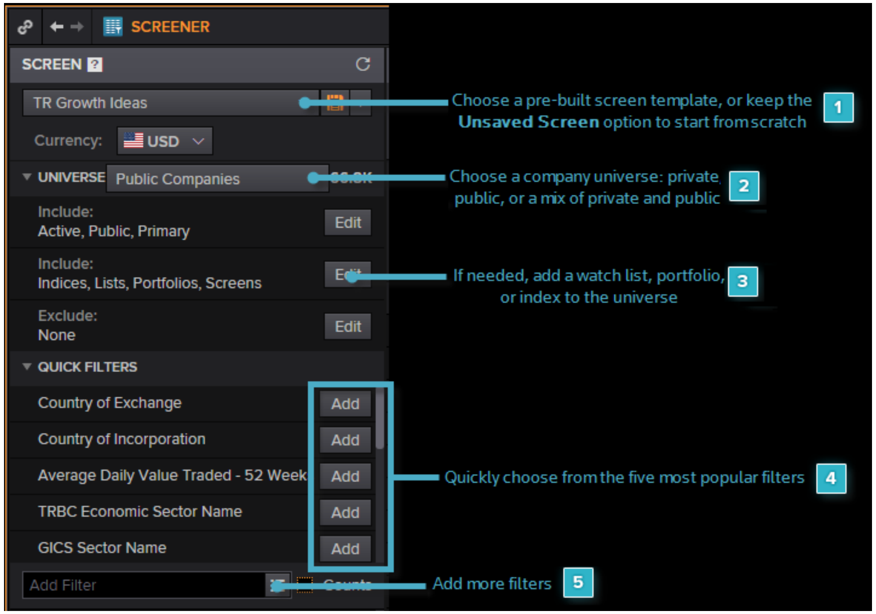
In this topic

HOW TO 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.

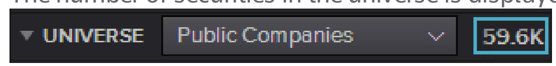
ⓘ Currently, you cannot transfer an existing screen from the old Equity Screener to the new Screener App.



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, or mix private and public companies.
   Tip: Select *UNIVERSE > Private Equity* to open the Private Equity Screener App.
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.

   The number of securities in the universe is displayed to the right of *UNIVERSE*:

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

Tip: Click  beside the *New filter* field, and choose among a list of data items. See also Using the Universal Data Item Picker.

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

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

DEPRECATED DATA ITEMS

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

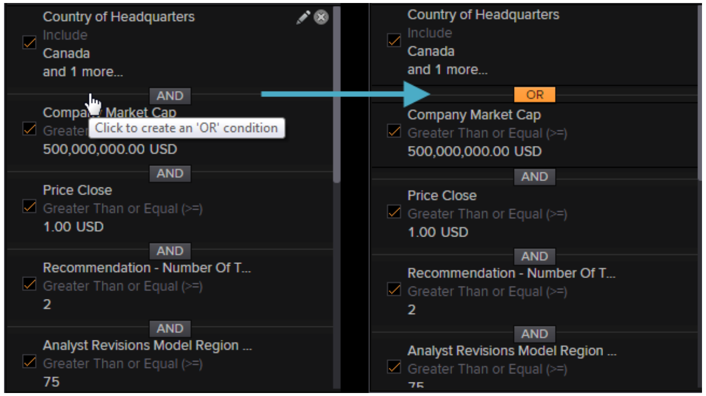
When you load them in the Screener App, a warning message is displayed to inform you that the deprecated items has been replaced by valid items.

Click *OK* to close the message.

HOW TO 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.

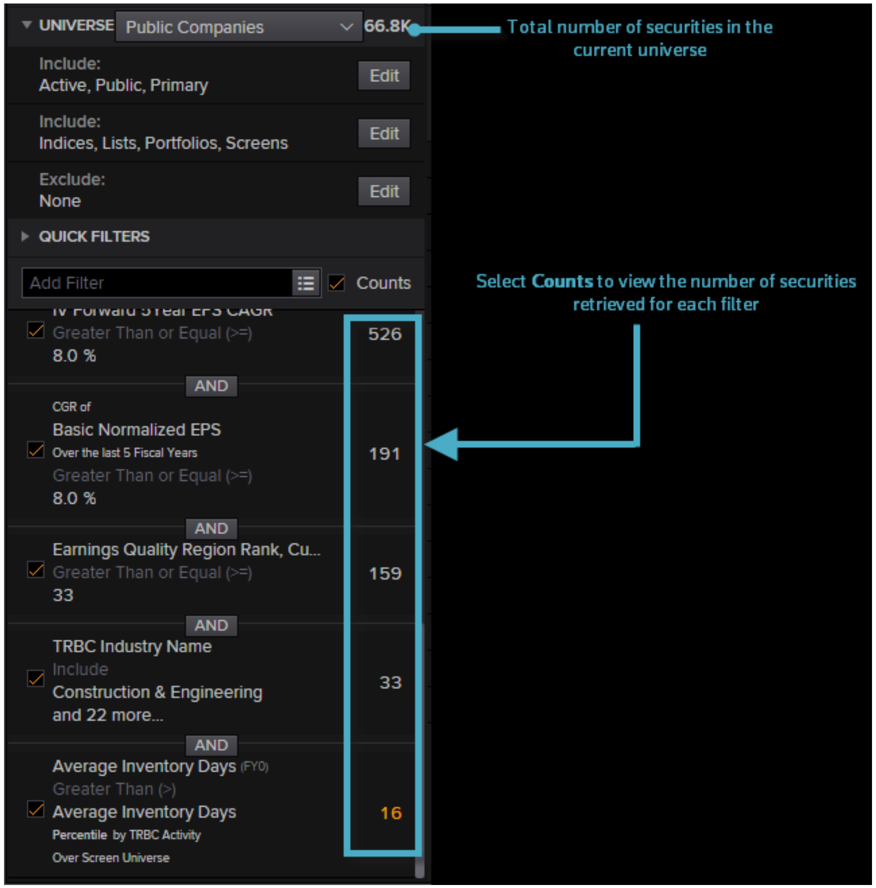
1. In the filter pane, point your mouse cursor between two filters, and click in the message that appears.
2. Repeat step 1 to restore the AND condition.



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, and so on for the next filters until the last filters which shows the companies that passed all the previous filters.



HOW TO RE-ORDER FILTERS

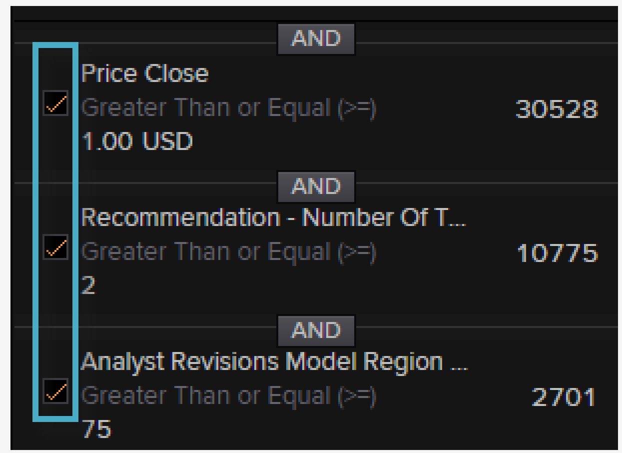
You can sort the order in which filters appear in the left pane.

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

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

HOW TO EDIT, DISABLE, OR REMOVE A FILTER

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

Edit	Double-click the filter in the left pane, or point your mouse cursor to the filter and click .
Disable	Clear the check box on the left of a filter. 
Remove	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.

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

HOW TO REFRESH A SCREEN

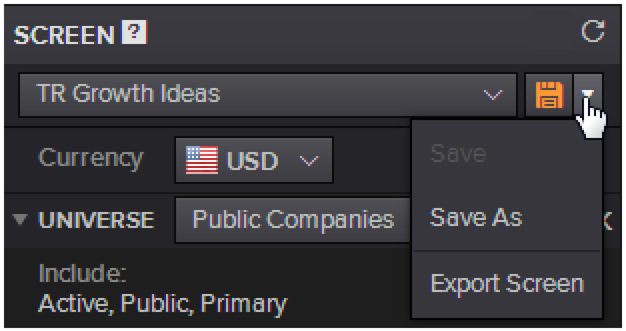
Screens are automatically refreshed each time you add, remove, or change a filter.

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

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.

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:

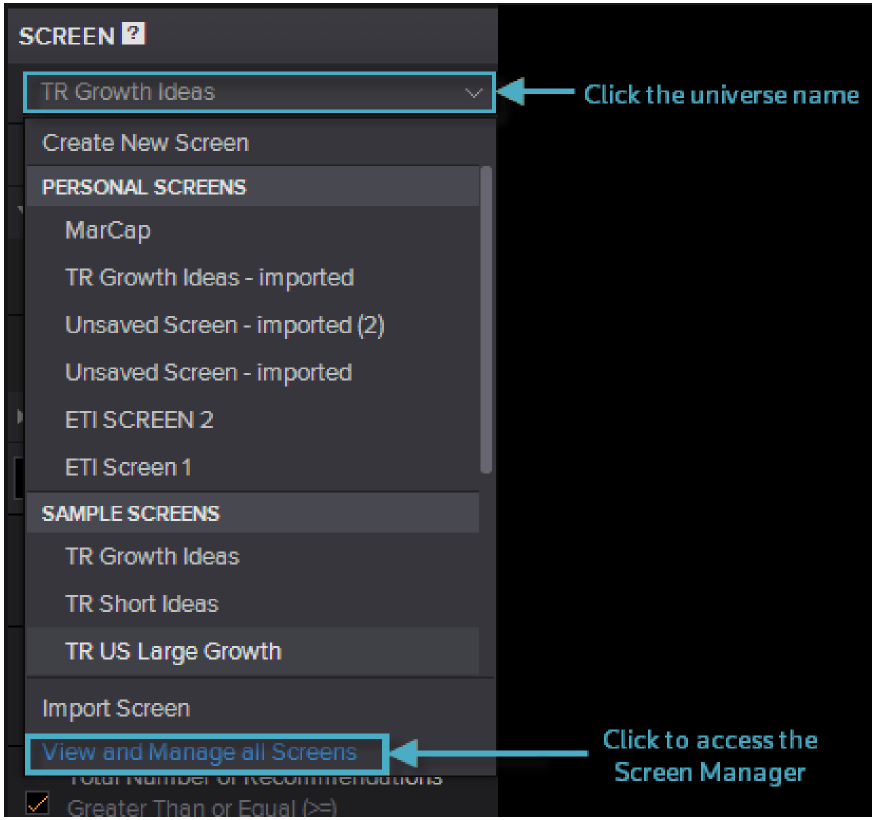
1. Click the *Unsaved Screen* drop-down list in the left pane, and select one of your personal screens.
   The *PERSONAL SCREENS* section lists the last ten screens you have used. If the screen you want is not listed, click *View and Manage All Screens* and go to step 2.
2. In *SCREEN LOADER*, select 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 export a screen, and send it by email to allow the recipients to import the screen back into their Thomson Reuters Eikon.

To export/import a screen, follow this procedure:

1. In the filter pane on the left, click  > *Export Screen*.
2. In the *File Download* dialog box, click *Save*.
3. Choose a location and click lick *Save* again.
4. To import a shared screen:
   - save the screen on your computer
   - click the name of the current universe, and choose *Import Screen*.

CREATING REPORTS AND TEMPLATES

In this topic

HOW TO ADD DATA ITEMS

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

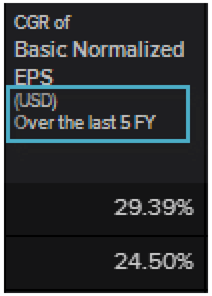
1. Click *Add Column*, and select a data item from the *UNIVERSAL DATA ITEM PICKER*.
2. Define the item parameters.
   See How to define advanced filter parameters.
3. Click *OK*.

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 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.



Edit	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*.
Hide	To hide the parameters from the column heading: ▪ Right-click the column heading, and select *Hide Parameters*.

HOW TO DISPLAY SECURITIES BY GROUP

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

ⓘ This feature is not available for *Ownership Holdings* screens.

1. In the report grid, click *Group*.
2. Choose up to three classifications, and select the *Enable Grouping* check box.
3. Drag and drop the classifications in the desired order.
4. Click *OK*.
5. To remove the grouping without loosing its parameters, clear the *Enable Grouping* check box.

HOW TO ADD STATISTICAL FACTORS

You can add a statistical factor for any item in the results.

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

Point your mouse cursor to a column heading, and click .

HOW TO SORT, REARRANGE, RESIZE COLUMNS

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

Sort	Click the column heading.
Move / reorder	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 DISPLAY COLUMN TOTALS

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

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

HOW TO DEFINE THE NUMBER OF DECIMAL PLACES

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

1. Right-click a column heading.
2. Select **Format Cells > 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 report to display the full decimal value.

HOW TO INCREASE OR DECREASE THE FONT

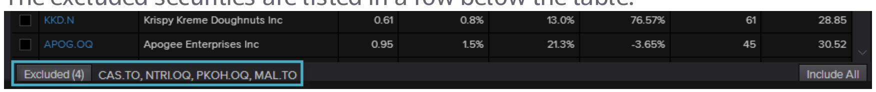
You can use a smaller font to view more data on one report page, or a bigger font for reading comfort.

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

HOW TO 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. Select the rows you want to exclude and right-click > *Exclude*.
   The excluded securities are listed in a row below the table.

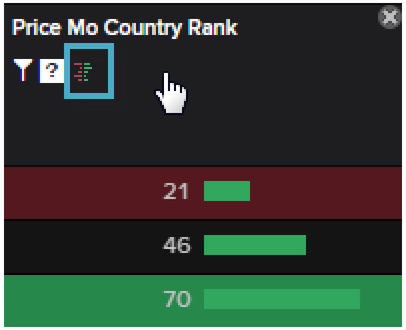


2. To restore excluded securities:
   - Click *Excluded*.
   - Select the securities you want to restore.
   - Click *Include*.

HOW TO VISUALIZE INTRADAY MOVEMENTS

To quickly view the top and bottom movers for the day, point your mouse cursor to the column heading and click .

To remove the tornado chart from the column, click again.

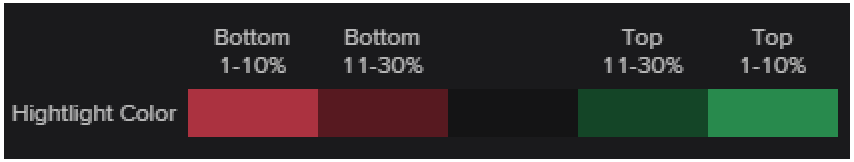


COLOR CODES

You can highlight top and bottom values in the grid by clicking ⚙ > *Highlight Top/Bottom Values*.

Metrics and ratios are color-coded so that you can quickly identify which securities show a moderate or substantial premium (or discount) compared to the median or average of all securities in the universe.

A winsorized mean and standard deviation are calculated using all values of a given data item in order to define the intervals within the value distribution. Approximately the top 30% of cells are then shaded as shown below:



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.

1. Customize a report.
2. Click > *Save As* beside *Unsaved Template*.
3. In *SAVE CHANGES*, select *Report Template* to create a new template.
4. Click *Save*.

The new template is now available from the *PERSONAL TEMPLATES* section of the drop-down list, and can be used with any screen.

Tip: The *Screen* option allows you to save changes you made to the screen universe and filters.

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*. It allows you to:

Find data items	effortlessly through the search and auto-suggest 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 in the same industry, sector, or country.
Rank results	by selecting multiple data items, and assigning a weight to each
Create data blocks	Create a sub-set of data items within a template.

HOW TO DEFINE ADVANCED FILTER PARAMETERS

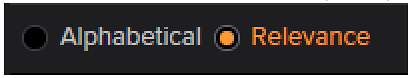
The *UNIVERSAL DATA ITEM PICKER* allows you to modify data item parameters, such as change the financial period for example. You can apply transformations (quick functions) to a data item. Transformations include: trend averages, percentage change, or aggregate functions such as industry medians.

ⓘ These features are not available for *Ownership Holdings* screens.

1. Click next to *Add Column* 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.
   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.
4. Expand *Quick Functions*, and choose the relevant analytics:
   - *% 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 a chosen universe

   See Quick Function example.
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.
6. Click *New MultiFactor Rank* to define weighted factors for ranking the securities of your universe.
7. Click *OK*.

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 results list:



Tip: For items with typically large figures, such as Market Capitalization or Revenue, you can scale down the figure displayed in the grid by selecting a unit from 2 (hundreds) to 10 (trillions) in the *Parameters > Scale* section.

ⓘ The options available from the *Parameters* section vary depending on the data item selected.

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* 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 and Financial period syntax.
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*.

ⓘ This feature is not available for *Ownership Holdings* screens.

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 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 , or click *More Options* to choose functions and data items by double-clicking them in the list.
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 Expression*s category, and identified by the custom expression icon ( )

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

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

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

HOW TO RENAME OR DELETE AN EXPRESSION

You can rename or delete expressions you saved earlier.

1. Click the name, and choose *View and Manage all* .
2. Click *Object Manager > Personal Expressions*.
3. Select an expression and click the desired button to rename or delete it.
4. Click *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.

ⓘ This feature is not available for *Ownership Holdings* screens.

1. lick *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.

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.

ⓘ This feature is not available for *Ownership Holdings* screens.

1. , 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*.

VIEWING THE RESULTS IN A SCATTER PLOT

This feature is not available for *Ownership Holdings* screens.

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 EXPORT A SCREEN TO NEW MICROSOFT EXCEL SPREADSHEET

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

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

1. 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 - 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

ⓘ This feature is available for Eikon desktop only.

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 Screener 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 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. 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
3. In *Name*, type a name for the list.
4. Click *Save* and *OK*.

Tip: To add the securities to an existing watchlist or portfolio, select the *Add to Existing* option.

HOW TO CLEAR ALL SELECTED ROWS

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

SCREENING ON OWNERSHIP

In this topic

SCREENING SCOPE

Screen on specific holdings or positions in public companies.

For example, show me:

- all holdings in the FTSE 100 companies where ownership is greater than 5% of total shares held outstanding
- increases in the shares held in pharmaceutical companies from U.S. investors
- all holdings in biotechnology companies invested in by U.K. hedge funds

NEW! Screen on investors in public companies.

For example, show me:

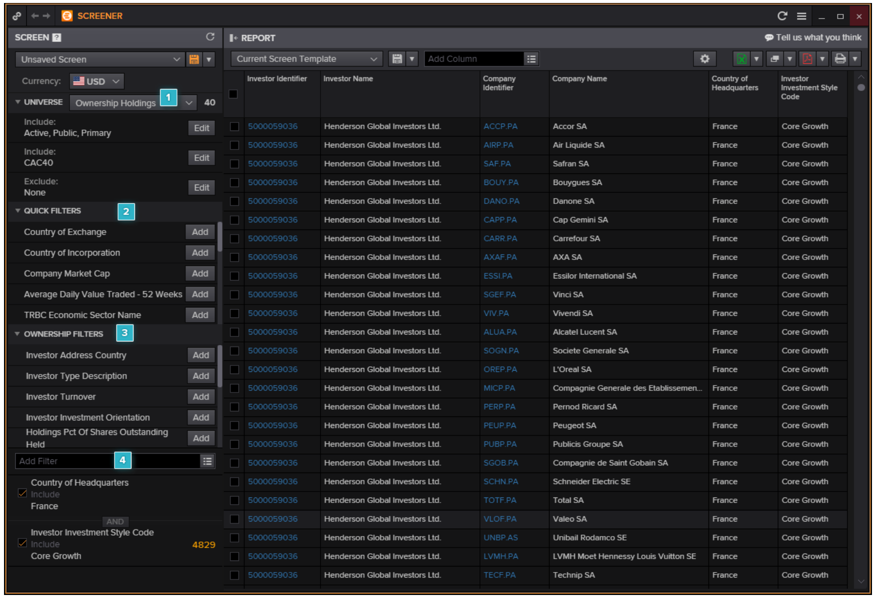
- U.K. investors in the companies of the FTSE 100
- Investment Managers that hold companies with Market cap between $5B - $25B
- GARP investors in Biotechnology companies

COMPANY AND OWNERSHIP FILTERS

1. In *UNIVERSE*, select *Ownership Holdings* or *Ownership Investors*.
2. Start by narrowing down the universe of companies for which you want to get holdings, investors or positions information, using the *UNIVERSE* and *QUICK FILTERS* sections.
3. Then choose a set of holdings and investors filters, using the *OWNERSHIP FILTERS* section.
4. Click *Add Filters* to search for more filters, if needed.

Important! You must define filters in the *UNIVERSE* , *QUICK FILTERS* and *OWNERSHIP FILTERS* sections on the left pane to narrow down the universe as much as possible in order to generate a screening report.

ⓘThe Ownership Holdings report can contain a maximum of 20,000 rows, while the limit for the Ownership Investors report is 10,000 rows.



OWNERSHIP REPORT

Columns

Depending on the option you select in *UNIVERSE*, the ownership *REPORT* grid on the left displays the following columns by default:

Column	Ownership Holdings	Ownership Investors
Investor Identifier	✔	✔
Investor Name	✔	✔
Company Identifier	✔	Not available
Company	✔	Not available

ⓘThese columns cannot be deleted or moved.

Tip: Click *Add Columns* to add data items to the report.

Tip: Click an investor identifier to open the *Investor Overview* page of the investor.

Views

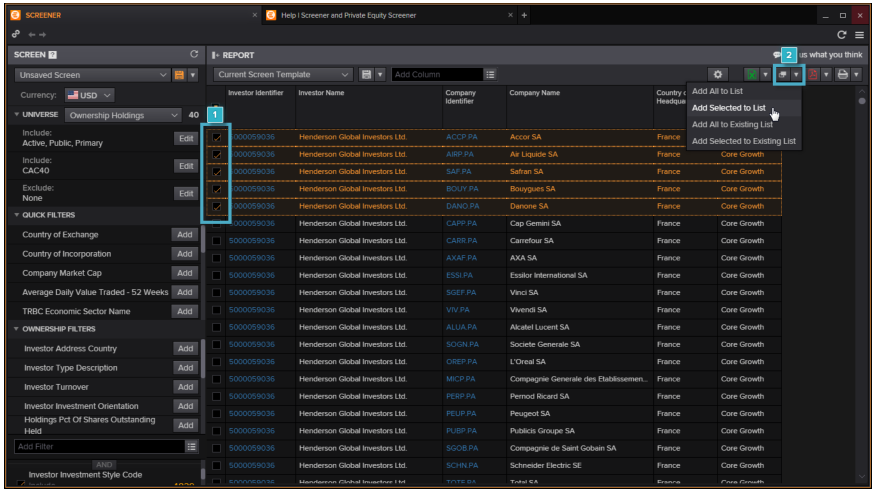
The Ownership Investors report offers three different views, each containing contain a maximum of 10,000 firms.

Report View	Description
Firms	Displays the firms that invest in the companies of the screening universe.
Funds	Displays the funds managed by the firms that pass the filter criteria and also hold a position in the companies of the screening universe.
Parent/Fund	Displays the firms and funds all in one view.

EXPORT AN INVESTOR LIST

To export a list of investors to Microsoft Excel, select the relevant check boxes in the *REPORT* grid and click .

ⓘWhen you re-import your list to Screener, you will not retrieve the holdings for the related companies.



EXCLUDED FEATURES

The *Ownership Holdings* option currently excludes the following report features:

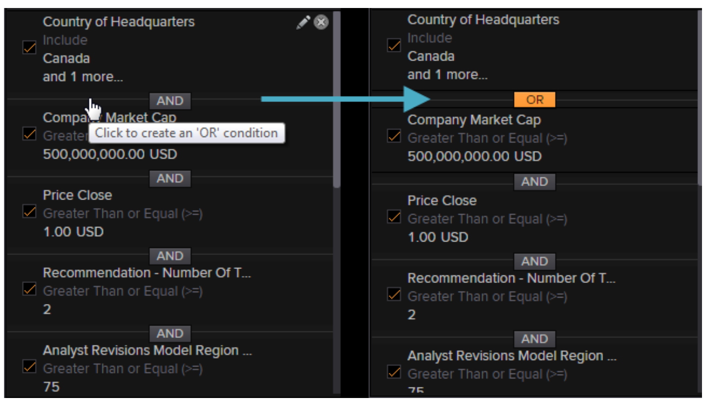
- expression builder
- time series
- data blocks
- multi-factor ranking
- grouping
- scatter plot

EQUITY SCREENER FAQS

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.

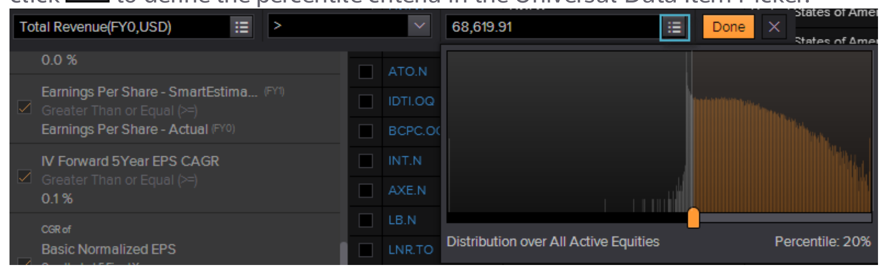
1. In the filter pane, point your mouse cursor between two filters, and click in the message that appears.
2. Repeat step 1 to restore the AND condition.



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 *Add 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 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 an old Equity Screener screen in 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 *Add 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 *Add 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.

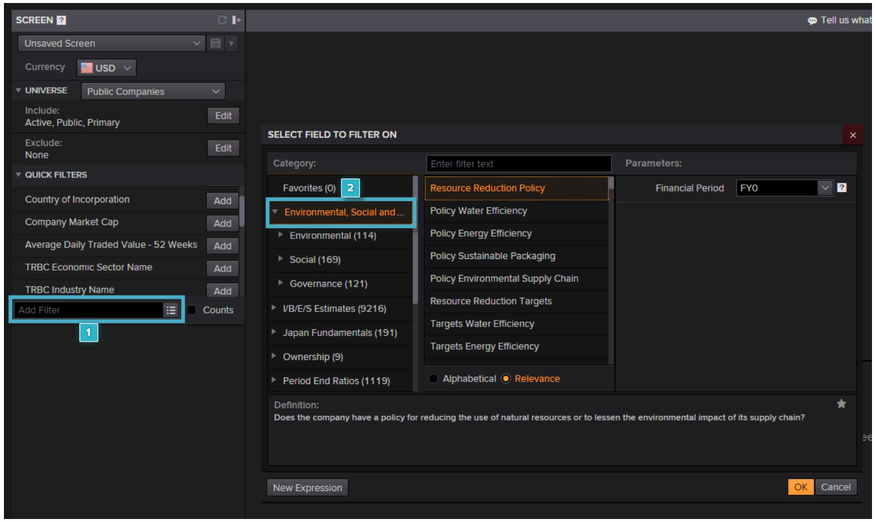
3. Click *Done*.

HOW DO I SCREEN ON SUSTAINABILITY?

1. In the left pane, click in *New Filter*.

2. In the data item picker, select the *Environmental, Social, and Governance* category, then select a data item in this category, and click *OK*.

3. Define criteria for the data item, and 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 *Add 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.

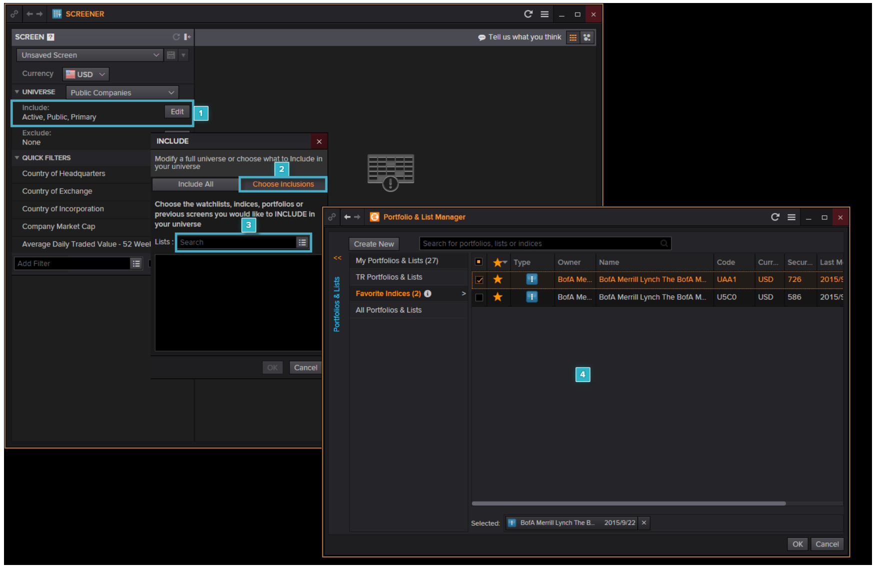
ⓘ If more than one company has the same value for the data item on which you apply a top/bottom filter, the results will show a number of companies above the rank/percentile you chose. For example if two companies have the exact same average inventory days in their industry, then the decile filter will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

HOW DO I SCREEN ON AN INDEX?

ⓘ To screen on companies within an index, you must have access rights to index data. For more information, contact your Thomson Reuters representative.

Tip: You can use ETFs as a substitute for most major indices. However, ETFs do not always fully match all the index constituents.

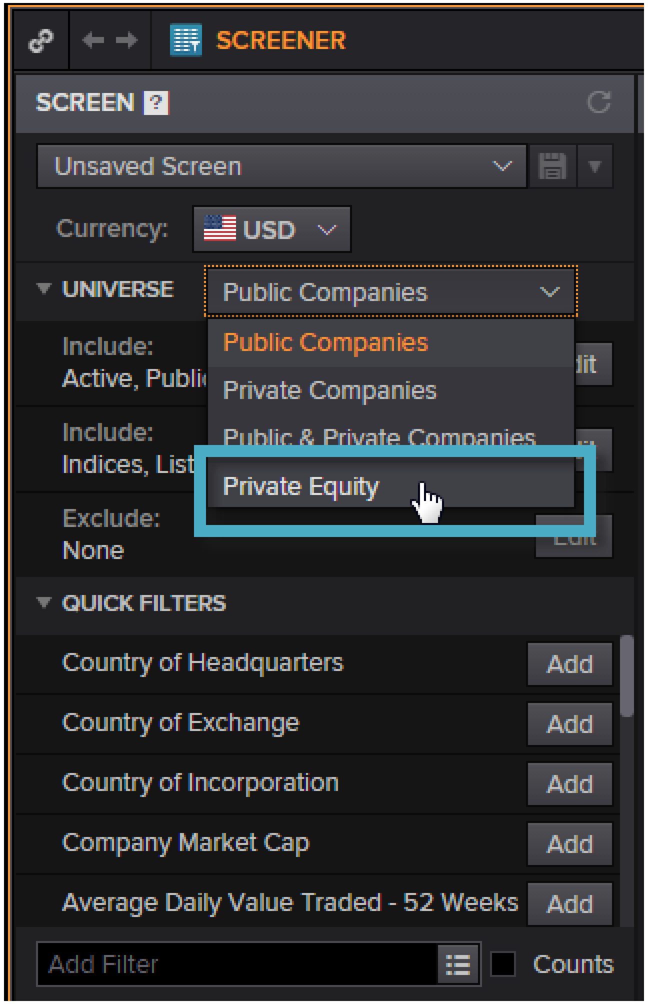
1. In the left pane, click *Edit* to define the *Inclusion* filter.
2. In the *INCLUDE* dialog box, click *Choose Inclusion* .
3. In *Lists*, type the name of an index and select it from the autosuggest results, or click ☰ to access your favorite indices from the *Portfolio & List Manager* dialog box.
4. In the *Portfolio & List Manager* dialog box, select an index and click *OK* several times to close the dialog boxes and apply your filter.



HOW DO I SCREEN ON PRIVATE EQUITIES?

The Private Equity Screener App is a flexible idea-generation tool that allows you to find private equity and venture capital investments within the investable universe that display certain characteristics.

You can open this app from Screener, by selecting *Private Equity* from the *UNIVERSE* drop-down list in the left pane.



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