# Zacks Research Wizard 4.0 Quick Reference

## Overview

Zacks Research Wizard 4.0 (RW) has two components:

I. The Research Wizard 4.0 software – resides on your hard drive or network. With RW 4.0 you can:

- Access a wide range of research information for over 6,000 US and Canadian companies, including fundamentals, broker recommendations, abstracts of brokerage research reports, excerpts from 10K/10Q and insider trading.
- Screen 6,000 companies Screen using up to 600 raw and calculated criteria including company vs. industry or S&P ratios and Backtest the historical performance of your screens.
- Produce standard and customized Portfolio Review Reports for your clients, create and monitor your own followed list.

II. Zacks Databases – reside on Zacks server, and are accessed via the Internet. The RW default database is DBCM.DBS (Current Market). It contains current market information, such as consensus quarterly and annual EPS estimates, market data, fundamental data, growth rates, valuation ratios, and supplementary descriptive information on over 6,000 companies. A data element or field is called an Item. EX.: TICKER, EST EPS, MKT VALUE.

## Screening

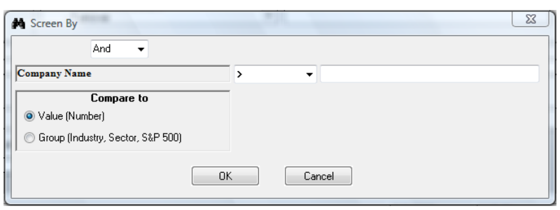
### Full Screening - Screen

Screening defines your active universe. Any screens you run create an active universe that is a sub-set of the full universe of the database or of your portfolio universe. See the Portfolios section for instructions on screening a portfolio.

RW's main display is the screening interface. It has two large windows: Categories and Items, and two narrow windows at the bottom of the screen: Screening Criteria and Report Definition. You can screen by *Database Item* or by *Calculation Expression*.

*Screening by Database Item*

1. Click on a category in the Categories window, for example Ratings-Current. It brings up the list of available items included in this category in the Items window.
2. Highlight an item. Note that the description of that item appears in the narrow window at the top of the screen, below the toolbar.
3. Double-click on an item, or click on , or select *Screen By Database Item* from the Screen pull-down menu, or right-click on a desired item and select *Screen By Database Item*. The Screen By dialog box comes up:

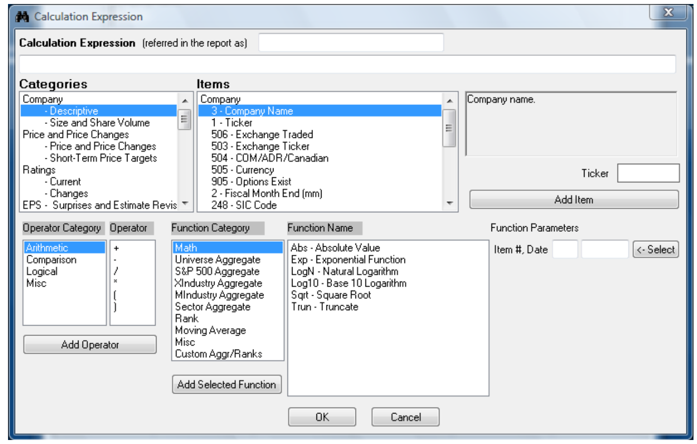



4. Select an operator and type in a value. In the example above, RW will check the entire database for companies with the Average Broker Rating less than 2.
5. For sequential screening select "And" at the top of the Screen By box. Each screen will be a sub-set of a previous run and each ticker in the output will have passed all screening definitions. For parallel screening select "Or". Each screening definition with "Or" applies your criteria to the initial universe of tickers, thus broadening your screen.
6. Click OK. You'll return to the main RW window. Notice that your screening criterion is now displayed in the Screening Criteria window as well as in the Report Definition window.
7. Repeat steps 1 through 5 until all screening criteria have been defined.
8. Click on Run Query. RW displays the results of your screen in the default format. You can view and modify the tickers that passed your screen by clicking on , and you can save them as a portfolio by clicking on . See the Reports section for instructions on customizing, sorting, and exporting RW's output.
9. Use at the top of the screen to toggle between the main interface (RW's main display) and the output interface (the results of running a query).
10. To save a screen definition (as a *.und file), select *Save Screen Definition* from the Screen menu. Type a file name in the File Name window, and click the Save button. Each time you run a saved screen, it generates an updated list of companies that meet your criteria.

***Screening by Calculation Expression***

1. Click on or select *Screen By Calculation Expression* from the Screen menu. The Calculation Expression dialog box comes up:

The first window at the top of the dialog box is the Calculation Expression window that displays your calculation expression. The three windows in the middle allow you to select categories and items and to see the description of a highlighted item. Note that each item in the Items window has a number associated with it. These numbers are used in calculation expressions. For example, Total Current Liabilities is item 89 or i89. The four bottom windows allow you to select operators and functions.




2. Enter your calculation expression. You can type an expression directly in the Calculation Expression window, or enter it by first selecting an appropriate category and then double-clicking on necessary items, operators, and functions. You can also use Add Operator and Add Function of Select Item buttons.

3. Click OK. The Screen By dialog box comes up. The rest of the screening process is the same as when screening by database item, see steps 4 through 10.

*Example: Suppose you want to screen based on the ratio of annual sales to average net working capital. To begin building your expression you need to find the item number for annual sales. Annual sales usually appear on the Income Statement, so highlight the Income Statement category to view available items. You will see that an annual sale is i80. Similarly you can find items 88 (Total Current Assets) and 89 (Total Current Liabilities) that are required to calculate net working capital. To calculate average net working capital you need to use average values for i88 and i89. An expression for average total current assets is (i88+i88[-1])/2 where [-1] next to i88 means that the value from the previous period should be used. The complete expression for the ratio of annual sales to average net working capital is i80/((i88+i88[-1])-(i89+i89[-1]))/2.*

*IMPORTANT! "Top %", "Top # ", "Bottom %", and "Bottom # " operators in the* Screen By *dialog box refer to the value of a data item and do not imply qualitative characteristics of an item. In other words, "Top" does not mean best; it just points to the largest value. For example, to screen for 15 best broker-rated companies, select "Bottom #" and type 15, because the best rating is Strong Buy and has a value of 1, whereas the worst rating has a value of 5.*

## Backtest Historical Screen Performance

The Backtest feature in RW allows you to test the performance of a saved screen definition, and compare it against the S&P 500 going back up to 2 years.

To run a backtest:

1. Click on Backtest at the Research Wizard menu. The Backtest Screen Definition dialog box comes up.
2. Specify the screen file (*.und) to be tested in the Screen Definition window. Use ... to browse.
3. Set the time period for your backtest using the From and To pull-down menus.
4. Select a desired holding period at the Holding Period window.
5. Choose the benchmark: S&P 500 (market weighted) or the Equal Weighted index.
6. Click the Run button to display the *Historical Performance of the Screen* report.

## Portfolio Review Reports

A RW portfolio is a text file containing a list of tickers. You can create multiple portfolios; for example a Current Holdings portfolio, a portfolio of Candidates for Investment, and a Risky portfolio. These portfolios can be used for further screening, for example you can create a "divestment" screen and run it periodically on your current holdings portfolio to identify stocks to be sold. Reports can be created easily to evaluate and monitor a portfolio's performance.

### A. Entering Portfolio

There are three ways to create portfolios:

I. Enter tickers manually. Select *Enter New Ticker List* from the Portfolio menu The Ticker List dialog box comes up. Highlight a ticker or a company name in the right-hand window containing the full universe of stocks. Then click the **Add** button, or double-click a ticker or a name. Your portfolio is displayed in the left window. You can also type a ticker in a small window at the top left-hand corner of the **Ticker List** dialog box, and then click the **Add Ticker** button. In addition, you can import an existing portfolio by clicking the **Add TkrList** button and selecting a desired text file.

To find a ticker, type at least the first letter of the company name in the **Search** window and press Enter. The best matches are displayed in alphabetical order in the window below the **Search**.

To save a created portfolio, click the **Save As** button. To accept a newly created portfolio as the active universe, click on **Apply**. This brings you back to RW's main interface. The portfolio file path and name are displayed in the **Screening Criteria** window.

II. Save the result of a screen or series of screens. After you execute a screen, click on or select *Save Tickers As List* from the Portfolio menu.

Save a text file of tickers generated by any other program, or created manually in WordPad or Notepad. When creating a list of tickers manually, use Enter after each ticker and remember to press Enter after the last ticker, otherwise RW does not see the last entry. Save the file as a text (*.txt) file.

### *Screening Portfolios*

Select *Open Ticker List* from the Portfolio menu. Highlight a portfolio (*.txt) file that you want to screen. Click **Open**. You'll return to the main interface. The tickers of the selected portfolio become your active universe. The name and the location of the open portfolio file are displayed in the **Screening Criteria** window. You can start screening using the steps described in the Screen section.

### *Modifying Portfolios*

Select Open Ticker List from the Portfolio menu. Highlight a portfolio (*.txt) file that you want to modify. Click Open. You return to the main interface. Select View/Edit Active Tickers from the Portfolio menu. It brings up the Ticker List dialog box where you can make necessary changes using the Add, Add Ticker, Add TkrList, Remove, and Remove All buttons. Alternatively, you can open a portfolio file in WordPad or Notepad and make changes directly.

## B. Producing Portfolio Reports

A report is a way to organize and display data on the tickers in your active universe. RW allows you to run standard reports, create customized multi-company reports, to save your report definitions, and to export reports to Microsoft® Excel® or a text file.

### *Using Standard Reports*

The RW includes several sample reports (*.rpd), such as analysts' opinion, earnings surprise, analyst estimates, estimate revisions, stock statistics, etc.

### *Creating Custom Reports*

Every report has two default columns: *Company* and *Ticker*. To add a new column, highlight a desired item in the **Items** window (at the main interface) and click on , or choose *Add Database Item* from the Report menu, or right-click on a desired item and select *Add Database Item To Report*. To add a calculation expression, click on , or select *Add Calculation Expression* from the Report menu. The **Calculation Expression** dialog box is displayed. Enter your expression just like in Screening By Calculation Expression, and then click **OK**. A new column is added to the **Report Definition** window at the bottom of the main interface. Continue the process until all desired report columns have been defined. Select *Save Report Definition* from the Report menu to save your report (as an *.rpd file).

### *Running and Printing Reports*

To run a report, you need an active universe of tickers. There are three ways to define an active universe – to enter screening criteria; to open a saved screen (*.und); or to open a portfolio (*.txt). To run a saved report, select Open Report Definition from the Report menu. Select a desired *.rpd file and click Open. Then click Run Query. To print a report, click on , or choose Print Report from the File menu.

### *Organizing, Sorting and Exporting Reports*

To organize and sort reports click on , or select *Organize/Sort* from the Data menu at the report interface. The **Organize/Sort** dialog box is displayed. Select desired settings at the **Organize by** and **Sort by** windows. Click **OK**. To export a report to Microsoft® Excel® or to a text file, select an appropriate command from the Data menu.

### *Modifying Reports*

Open a report definition that requires modification. To add columns use the same commands as when creating a report. To modify, delete, cut, or copy a column, first highlight a column in the Report Definition window, then right-click on it and select a desired command. You can access the same menu by selecting Edit Report Definition from the Report menu.

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**Refer to Zacks Research Wizard 4.0 documentation or contact Zacks Customer Support for additional instructions.**