CRASSUS USER GUIDE
A Stock Technical Analysis Application

What is the Purpose of Crassus?
- Crassus is a stock analysis application.
- You can plot standard market indicators with the price of a stock over time to help you analyze a particular stock.
- You can tell Crassus to alert you when certain conditions are met, which would allow you to browse the internet or do something else on your computer while trading instead of keeping your eyes on a stock and waiting for a condition to happen.

How do I View a Particular Stock?

Adding a New Stock
- Press CTRL+T, click the plus button under the box that is titled "Tickers," or go to the Ticker>>Add-New-Ticker menu option. A new window will launch that allows you to add a ticker to the program. It has the following characteristics:
    - You can type in a ticker-symbol. Autocorrect options in a drop-down menu will show other similar ticker-symbols to what you have typed.
    - Press 'ENTER' or click on 'OK' to add the stock to Crassus.
    - Press 'CANCEL' to cancel the operation (and nothing will happen).

- You can add as many tickers as you would like.

Selecting a Stock That You Have Added
- You can click on the stock's name in the box to select it.
- You can also use the arrow keys when the Ticker-box is in focus (indicated by the dark black border around the Ticker-box) to navigate between the stocks. To grab focus on the Ticker-box, you can press ALT+T

Removing a Stock
- To remove a stock, the stock must be selected.
- If you press CTRL+SHIFT+T, or press the '-' button under the Ticker-box, or go to Ticker>>Remove-Selected-Ticker, the selected stock-ticker will be removed.

How do I Change the Plotting Options?
- There are boxes under the plot that are labelled by 'Time-Scale' and 'Time-Freq.' 'Time-Scale' indicates the length of time that will be plotted, while 'Time-Freq' indicates the frequency you would like to use to plot. If you select an option from the corresponding drop-down menu, the stock will be replotted with that time-scale or time-frequency.
- Note that when you change the time-scale, Crassus assumes that you want the highest time-frequency resolution available for your data. Because of this, you should change the time-scale **before** changing the time-frequency.
- You can also change the time-scale and time-frequency from the 'Plot' drop-down menu. The menu options all correspond to selectable items in the drop-down menus.
- The option Plot>>Refresh (or CTRL+R) will manually refresh the plot. This is done automatically by Crassus every 30 seconds.

What Can I do With Indicators?

Adding a New Indicator
Select the stock-ticker you would like to add an indicator to from the Ticker-Box. Then go to Indicators>>Add-New-Indicator, or press CTRL+I, or click the plus button under the box titled 'Indicators.' Then, a window will pop in which you can set up your new indicator.

Setting Indicator Parameters
Select the type of indicator you would like to create by selecting from the drop-down box at the top of the indicator window. Each indicator has different parameters, and you can determine what each of them are by hovering over the fields or buttons. Each indicator comes pre-loaded with typical values for its parameters.

Selecting a Different Indicator
- You can click on the indicator's name in the indicator-box to select it.

- You can also use the arrow keys when the indicator-box is in focus (indicated by the dark black border around the indicator-box) to navigate between the indicators. To grab focus on the Ticker-box, you can press ALT+I.

Editing an Existing Indicator

Either double click on the indicator, or select the indicator you would like to edit, then, go to Indicators>>Edit-Selected-Indicator, or press CTRL+ALT+I. This will launch a window identical to the add-indicator window, which will allow you to modify the parameters of your indicator.

Removing an Indicator

First select the indicator. Then, either go to Indicators>>Remove-Selected-Indicator, press CTRL+SHIFT+I, or click on the minus button under the box titled 'Indicators'

Changing Indicator Visibility

If you click on the eye icon next to an indicator in your indicator-list, you will toggle the visibility of the indicator in the plot. This will show or hide the guiding lines for the indicator in the plot for the current stock.

Indicator Auto-Alerts
- Clicking on the exclamation point next to the indicator will toggle alerts on or off for the indicator.
- When an indicator is reaches a 'BUY' or 'SELL' condition while the alerts are on
  - The indicator will be highlighted. Green indicates a 'BUY' condition, while red indicates a 'SELL' condition.
  - The stock corresponding to the indicator will be highlighted. Again, green indicates 'BUY' and red indicates 'SELL.' If two indicators for the same stock have conflicting conditions, the stock will be highlighted brown.
  - If the stock's condition changes to anything other than no-condition (such as a buy-condition, sell-condition, or conflict-condition), **and** the Crassus window is inactive (i.e., minimized, or hidden behind other windows), Crassus will be brought to the front and notify you that a condition has changed.
- If the indicator reaches a BUY or SELL condition while it has alerts off
  - The indicator will be faintly highlighted to indicate it's current condition.
  - The corresponding stock will *not* be highlighted
  - The Crassus window will *not* be brought to the front to notify you if the indicator is triggered.

HELP! Where Did All My Indicators Go?
- Most likely, you selected a different stock. Indicators are associated with a particular stock in your ticker-box, so when you switch stocks you will see a different set of tickers.
- In some cases, you may have accidentally deleted the stock. If this is the case, you can press CTRL+Z to get the stock back (see the undo/redo section of this user-manual).

Undoing/Redoing changes

- Undoable/Redoable changes include just about everything, such as: selection change, adding or removing tickers, adding, removing, or changing indicators, or toggling the visibility or auto-alerts on or off for an indicator.
- You can undo an action by going to Edit>>Undo, or by pressing CTRL+Z
- You can redo an action by going to Edit>>Redo, or by pressing CTRL+Y

Saving and Opening Files
- Saved files store information on which stocks you had open, the indicators associated with each stock, and whether each indicator was visible and/or had auto-alerts on.
- Crassus files are of the file-type ".crassus"
- Selecting File>>Save-As (or alternatively pressing CTRL+SHIFT+S) will prompt you for a location to save your file, and save it there.
- Selecting File>>Save (or alternatively pressing CTRL+S) will save the file you currently have open. If it does not yet have a location to save, File>>Save will act the same as File>>Save-As.
- Selecting File>>New (or alternatively pressing CTRL+N) will create a new file. If you have unsaved changes to your current document Crassus will alert you and allow you to save your current file or cancel the operation first.
- Selecting File>>Open (or alternatively pressing CTRL+O) will open an existing file, as in File>>New, Crassus will alert you if your current file has unsaved changes.

Exiting the Application
- Either go to File>>Exit, or click on the 'X' in the upper right hand corner. If you have unsaved changes, Crassus will prompt you to ask whether you want to save them before exiting.