



Version 4.3

Welcome to the latest revisions to Australia's BullCharts charting software. This version (4.3) runs on: Windows 7, Windows 8 (both 32-bit and 64-bit) and the new Windows 10. This version is not supported on Windows XP.

The last update to version 4.2 included some significant changes to the underlying database system, and the process for downloading data. With price data from additional exchanges available, the computer disk storage space requirement can be significantly greater than before. The reader is encouraged to also view the "What's New in BullCharts Version 4.2" document for further details, especially if currently using BullCharts version 4.1 or earlier.

This upgrade to version 4.3 includes the following key features (plus others):

- Enhancing the recent changes to enable price data from more exchanges.
- Special support for interfacing MetaStock data, including for the additional exchanges.
- The ability to have multiple price charts, with several all synchronised to be the same security, and to have an "orphan" chart displaying data for a different security (ie. an unsynchronised chart).
- Updates to the BullCharts Help, with a new online KnowledgeBase.
- Many other smaller feature changes (see the Table of Contents on the next page for a list of these).

This document provides an overview of all the changes in this new Version 4.3. See a summary list in the Table of Contents on the next page. Also refer to past "What's New" documents for a list of other revisions and changes in past version updates.

BullCharts staff

BullCharts support:
email: info@bullsystems.com.au
phone: 02 9495 8400

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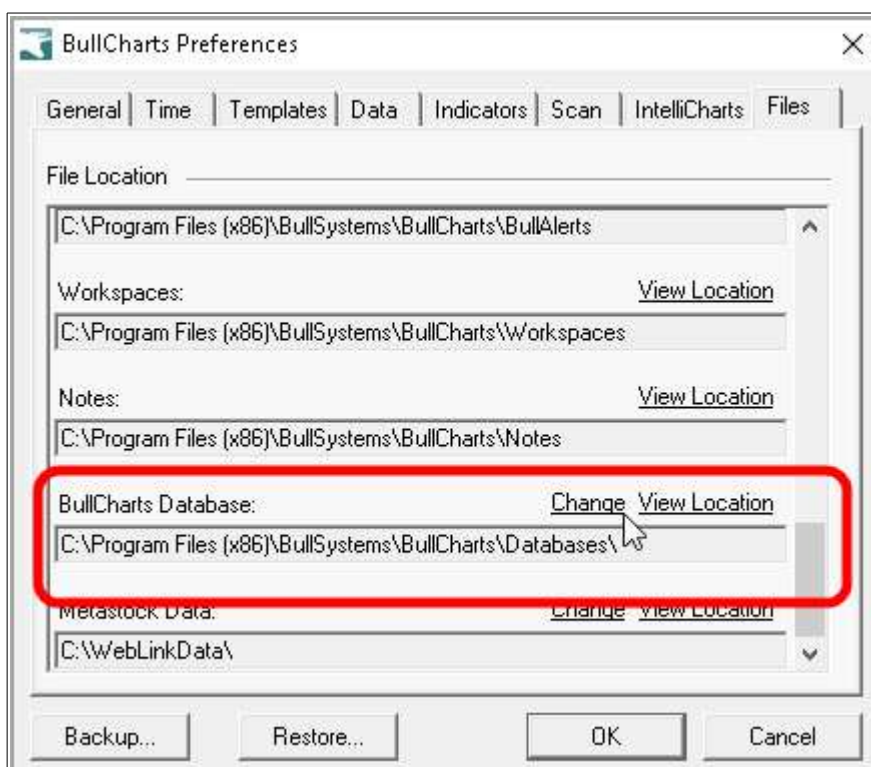
1. Data exchanges, databases and price data

New databases and “other exchange” data

Until BullCharts version 4.2, the Microsoft SQL database system was used to store all BullCharts data, and only comprised security data for all Australian securities (back to 1985 — the start of the ASX as a single national exchange). With the recent upgrade of BullCharts to version 4.2, this was changed and expanded and the database system now in use is SQLite¹.

This change to the database system has made it easier to accommodate data from other exchanges, including commodities data and securities from other countries including New Zealand and USA (and others). (Also see more details in the “What’s New in v4.2” document.)

The location of the databases on your computer can be viewed, and changed. Use the menu option: **Tools > Preferences > Files** (tab), as shown in the screen shot below.



During the installation or upgrade to BullCharts v4.3, you have the opportunity to install some or all of the additional databases. If you find later that you no longer want to use a particular database, then you can simply use Windows Explorer to navigate to the relevant folder, and then simply delete the database.

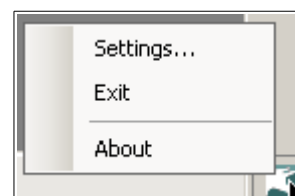
1 — See SQLite details: <https://en.wikipedia.org/wiki/SQLite>

The BullCharts DataDownloader

The BullCharts DataDownloader (BCDD) tool is now used to manage the download of data, instead of the previously used download process. This tool can manage the download for data from different exchanges and has been used since the previous BullCharts upgrade to version 4.2. Some of the changes in this BullCharts version 4.3 are simply tweaks or enhancements to this process. (Also see more details in the “What's New in v4.2” document.)

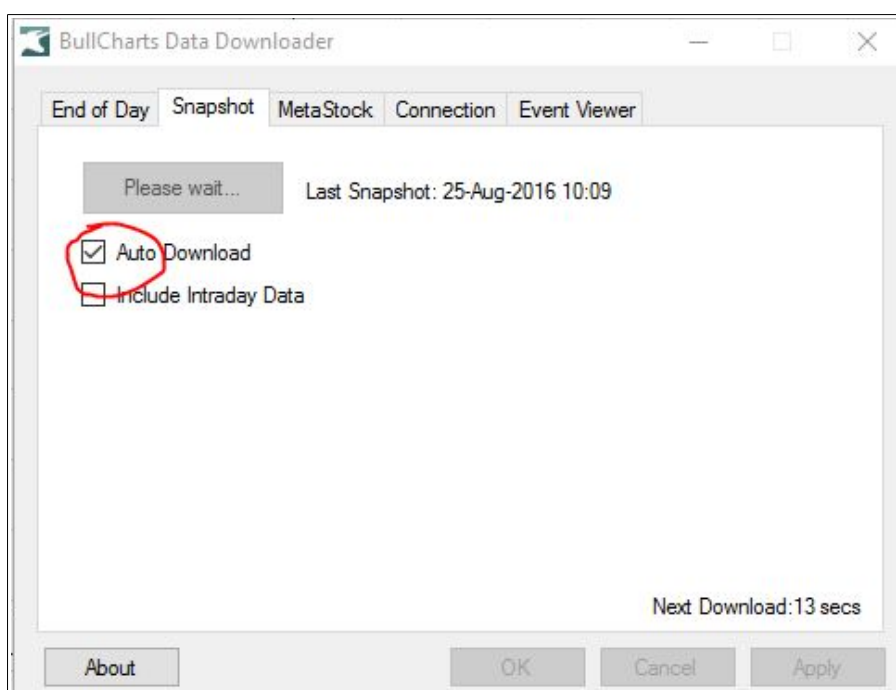
Within this “What's New” document there are references to using the BullCharts DataDownloader tool. Once BullCharts is running, you can access this down-loader tool by any of the following methods:

- Menu option: **Tools > Get Daily Data**. This will open the BullCharts DataDownloader tool.
- Use <Ctrl>+G — The keyboard shortcut key combination using the Control key and the letter “G” will trigger the “get data” operation. (This is indicated on the menu option: **Tools > Get Daily Data**.)
- Look for the BullCharts icon in the Windows System Tray notification area (usually the bottom right corner of the Windows screen), then right-click, then select “Settings...” (see screen shot at right).



Auto download of snapshot data

For users with either the live data plan, or the intraday snapshot plan, the BullCharts DataDownloader tool might be set to “Auto Download” snapshot data every 10 minutes. The user might want to check this setting and adjust as required (remove the tick for Auto Download).

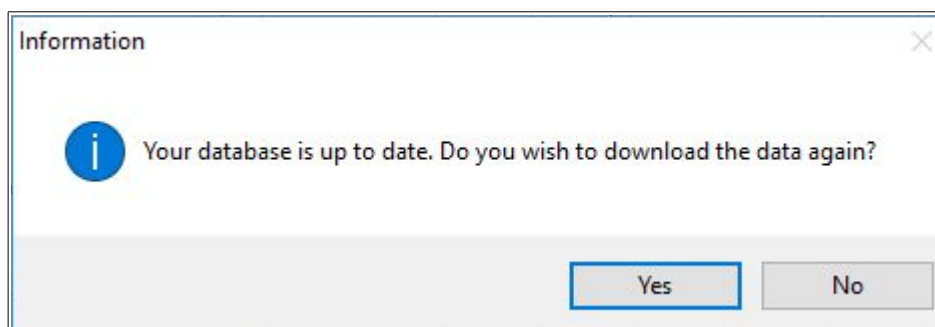


Warning if download existing data

If the BullCharts DataDownloader is about to download data, but the database is already up to date, then the warning message shown below will be displayed. This can happen if you want to download data for a specific date (or date range) which might have been missed previously.

There might be several days of data missing, perhaps due to a vacation, and which were not downloaded at the time. Or there might simply be some missing days in the original data stream from the data provider. Or the original data stream might have contained some incorrect or corrupt data, in which case downloading it again might fix the issue.

This message is simply an informational warning message.



Windows notification on data update

By default, when BullCharts had applied a data update in the past, it would display a notification message to advise that the operation had completed. This notification message has been removed. For a user who uses the live data or snapshots during the day, the message could have been rather annoying because of its frequency.

Occasional incorrect message on data updates

On occasions, when doing a data update in earlier versions, BullCharts might have displayed a message incorrectly advising that the data plan does not support Snapshots. This feature now behaves correctly (a bug fix).

2. MetaStock related features

A major change in this new version of BullCharts is the support for Metastock data, including the download and export of Metastock-format data.

Download and export in MetaStock format

Regarding MetaStock for OmniTrader and other programs that read the MS data format, there is now an option in BullCharts to export data from the BullCharts system into external MetaStock format files. If the data is already in one of the BullCharts databases that you have installed, then it is extracted (exported) from there. If not, the data is downloaded over the internet (from the BullCharts / WebLink servers), and then exported.

This option is in the BullCharts DataDownloader window, and the MetaStock tab (see screen shot below). This screen also shows the various data sets that are available.

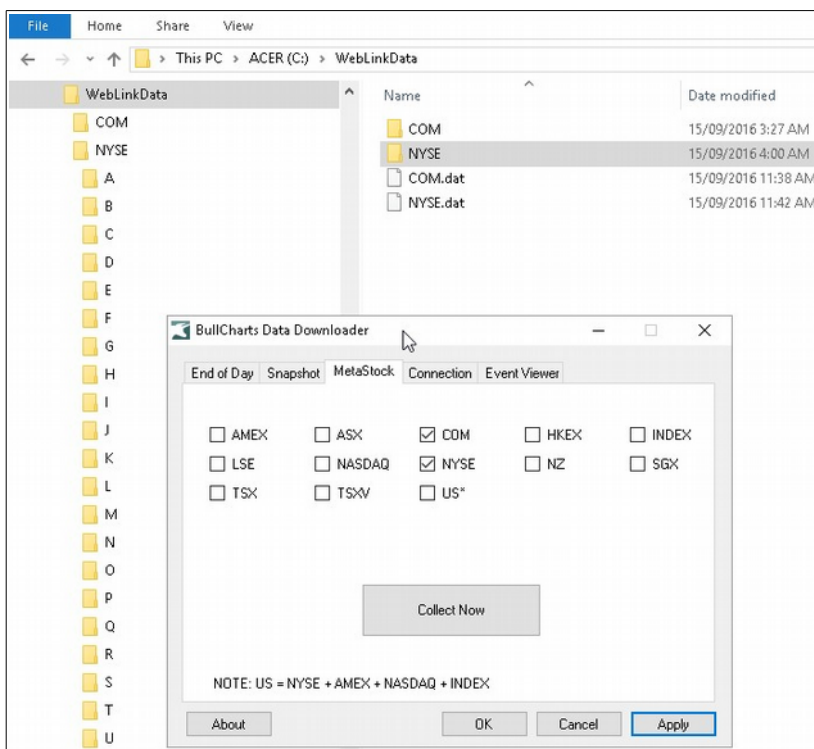
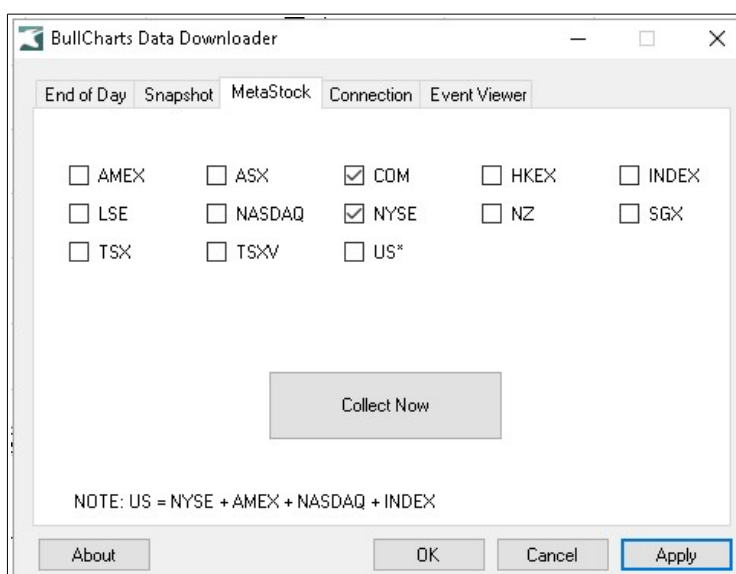
With reference to this screen shot, to download and export MetaStock data simply:

- Select the required data sets; and
- Click on the “Collect Now” button.

By default, the data is downloaded to the local folder: C:\WebLinkData (see the next screen shot below right). The folder location can be changed — see notes below.

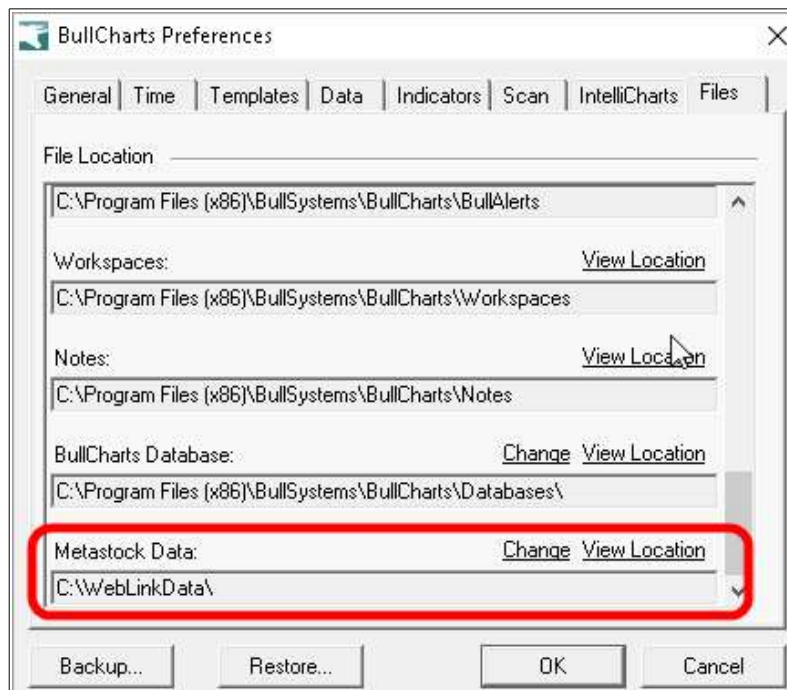
Note the following key points:

1. You can download MetaStock data for any of the available exchanges. You don't have to have the same exchange database installed in BullCharts.
2. If the data set you select is not available on your computer, the DownLoader will download it into a temporary file, and then expand the data into the desired folder location as MetaStock data.
3. Once selected, the MetaStock data is automatically converted each day or you can manually download it.



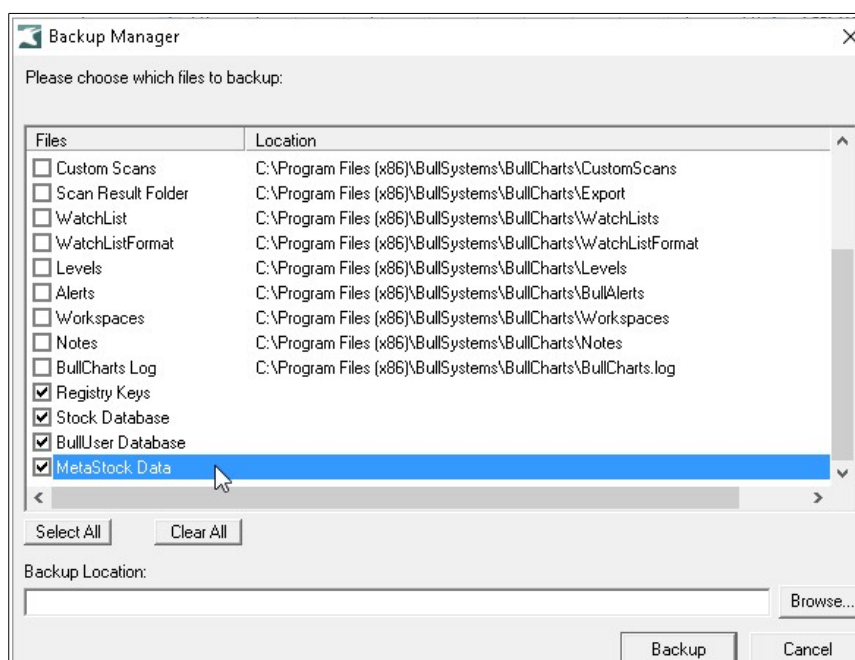
What's New in BullCharts version 4.3

4. For users on the BullCharts live data plan, the ASX MetaStock data is updated every 10 minutes.
5. To change the target folder for the extracted MetaStock data, select from the BullCharts menu: **Tools > Preferences > Files** (tab), and scroll down to the **Metastock Data** option (see screen shot below). Note the options here include: "Change", or "View Location".



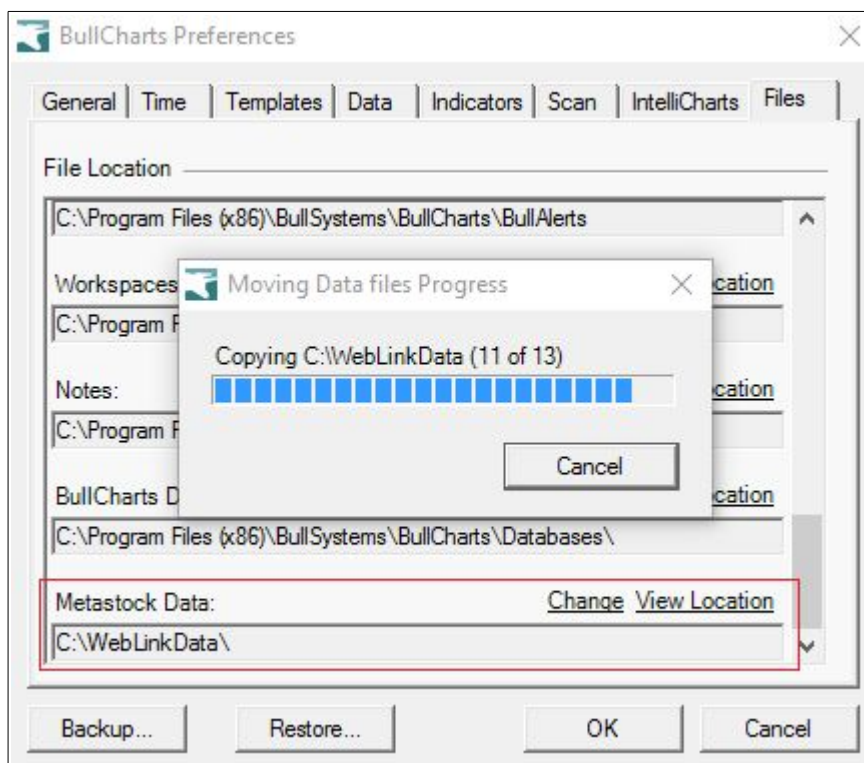
Backup the Metastock directory

The existing BullCharts Backup facility under the Tools menu item now has an option to also backup the Metastock directory. From the menu, select: **Tools > Backup** and scroll down the list. Note that backing up most BullCharts files is fairly quick, but the larger databases might take a few minutes (depending on the speed of the computer).



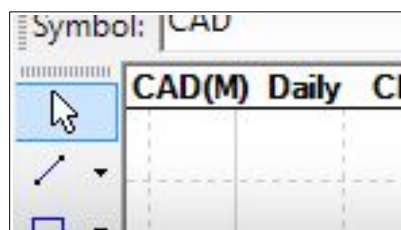
Change location of Metastock files

There is an option to change the location of the Metastock files and move them to a new location.



Display (M) for Metastock charts

When a chart is displayed using Metastock data, display “(M)” next to the symbol in the top left corner of the chart to indicate it is using Metastock data from BullCharts.



3. Sync and Unsync chart windows

Sync only some chart windows (ie. the UnSync feature)

This new feature enhancement is also referred to as the ability to “unsync selected windows”.

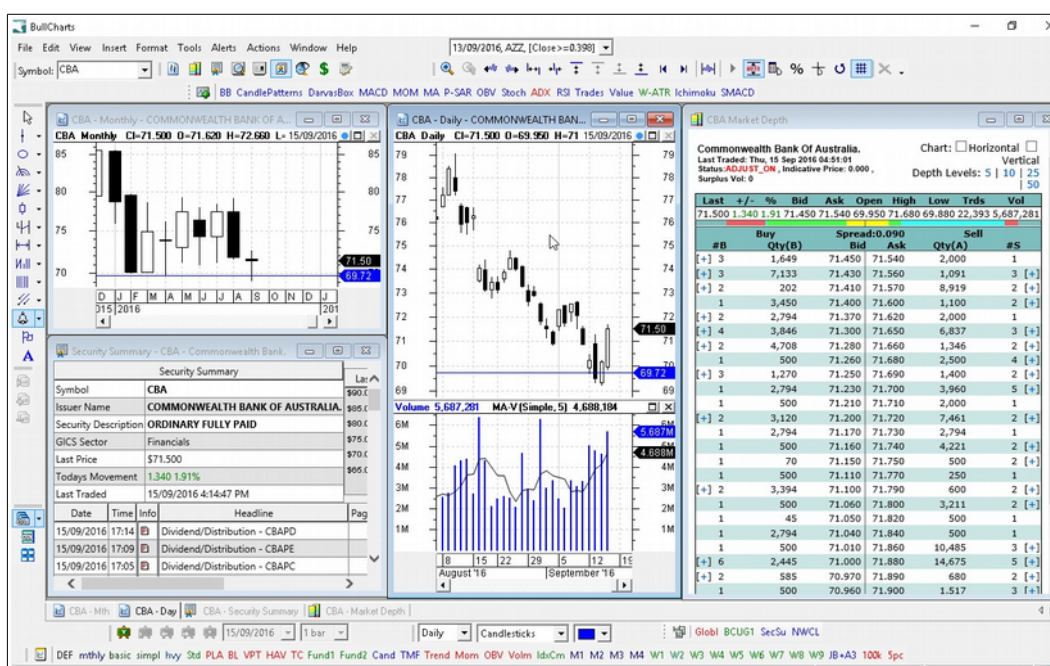
In BullCharts you have always been able to display more than one price chart at the same time — perhaps three charts for example (one daily, one weekly, one monthly) and arranged around the screen so all are visible (use the option to **Tile Windows** — either the menu option or the toolbar button). These charts could be three different securities of the same time period (eg. all daily charts), or they could be “Synchronised” to all display the same security (using the toolbar button “Synchronise all chart windows”, normally located on the Workspace toolbar on the left side of the window — see screen shot at right). A collection of price charts like this is a BullCharts Workspace. In addition, the workspace might include additional window panes such as the Security Summary, News, market announcements, market depth, etc.



However, analysis is sometimes needed in conjunction with other price charts, such as the monitoring of an index (eg. the XJO). This would require some of the price charts to NOT be synchronised. It is now possible to synchronise all chart windows, and then “unsync” individual price chart windows by clicking the blue icon in the top right hand corner of a chart (see screen shot at right).

Your settings are remembered when you want to resync the windows again.

One possible example of a multi-chart workspace is shown below, and includes a monthly chart of CBA (top left) and daily chart of CBA (centre) with market depth (right hand side) and the Security Summary (lower left).



What's New in BullCharts version 4.3

With your desired selection of single-security charts or windows set up, make sure to enable the “Synchronise all chart windows” option (the toolbar on the left of the window). Then you can add another chart for this security, and then “unsync” this chart from the sync group.

Special notes for Synch and UnSync

Special notes for use of this feature:

1. When this feature is in use, you might have one set of price chart windows (maybe just one, or more) displaying information for one security, and another set of windows (again, maybe just one, or more) for a different security.
2. One set of windows will be the synchronised group of windows (referred to as the “sync” group). The other window(s) will be the “orphan” window(s).
3. There can only be one “sync” group of windows.
4. A window in the “sync” group can be removed from the group by clicking on the blue button in the top corner of its window. When you do this, the button changes colour from blue to white.
5. Another window can be added to the “sync” group by clicking on the otherwise blue button (when unsynced, the button is white).
6. Non-chart windows can be included within the “sync” group of windows, but they cannot be removed the group, nor added to the group, as they don't have the blue button. By unsyncing these windows, BullCharts would not know which security to relate it to.

Now, to change the security for one set of these displayed windows, note the following. The change of security (or change of symbol — same thing), will apply to the set of windows that is “in focus”. Changing the security for one window within a sync group will of course change it for all windows within that synchronised group. If the window in focus is an “orphan” window (ie. no other windows are synchronised with it), then the change of security will only apply to that one window.

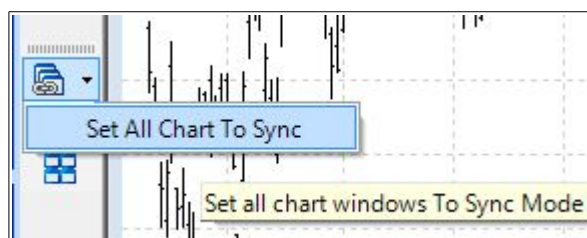
(This new feature was implemented in version 4.3.1)

Re-sync all chart windows

This is related to the “Synch only some windows” feature mentioned above. This option can be used when you wish to quickly resynchronise all chart windows, so as to have just one sync group, and no orphan windows.

The existing toolbar button “Synchronise all chart windows” now has an optional feature added to it to “Set All Charts To Sync” (see screen shot at right).

(This new feature was implemented in version 4.3.1.1)



4. Updates to BullCharts Help

Accessing BullCharts Knowledge Base

This is a new Help option to compliment the BullCharts Help User Manual. The BullCharts Knowledge Base is a cloud based service that allows quick updates on-the-fly to any support issues.

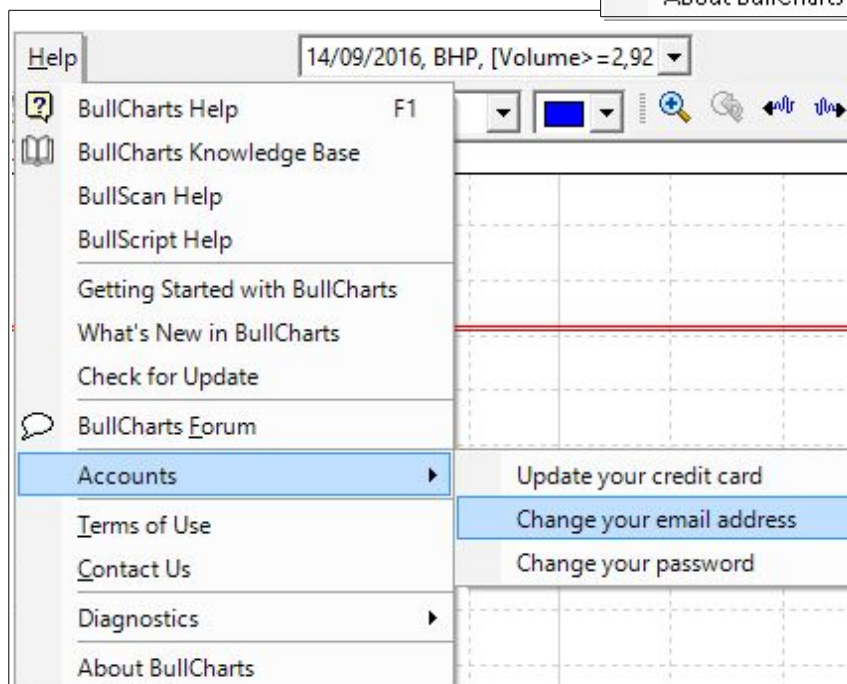
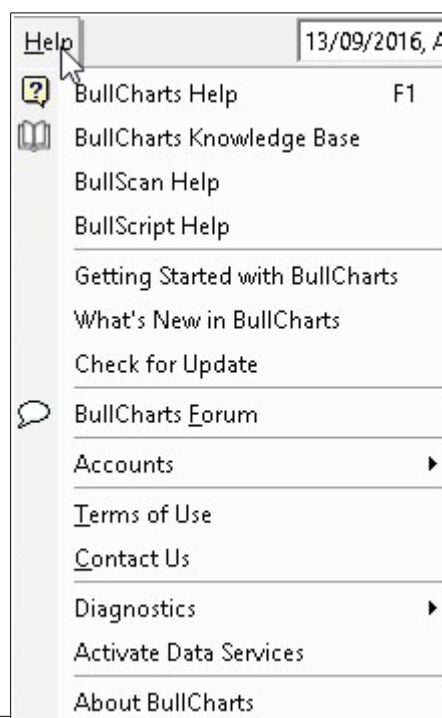
The new web-based BullCharts KnowledgeBase can be accessed from the menu option under Help (see the screen shot at right). It can also be accessed directly at: kb.bullcharts.com.au

(Version 4.3.1.2)

Link to Accounts

Under some circumstances you might need to update your email address or BullCharts system password (or credit card details). There is now a link to access this from the Help menu (see the screen shot below).

(Version 4.3.1.2)



Other help options

Note the other (existing) help menu options in the screen shots above.

5. Other updates

Scheduled time to get data

The option to schedule the time to “Get Daily Data” has been changed to be “auto updated” for the ASX and overseas databases.

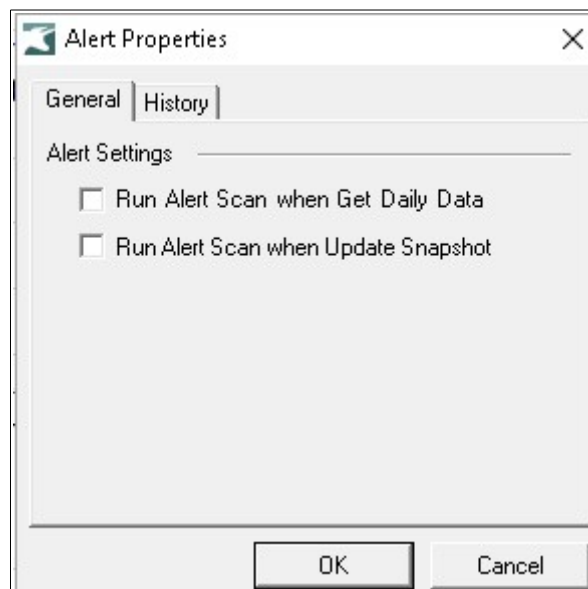
Alert Manager auto triggered

Once a data download has been completed, the Alert Manager will be triggered automatically.

Also note the Alert Properties settings under the menu option:

Alerts > Properties

(see screen shot at right).

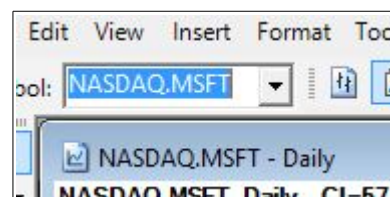


Increase size of symbol box

In the past, the security symbols (in the ASX data) were limited to only a few characters. But with the implementation of data from other exchanges, there are now securities (and perhaps commodities, etc.) with symbols of many characters. Therefore, the size of the symbol box (usually in the top left corner of the window) has been increased to accommodate more characters.

This is the “Security” toolbar which can be displayed or hidden using the menu option: **View > Toolbars**.

Don't forget that all toolbars can be dragged to another location around the BullCharts window, and docked into a new location.



Better video support for 4K Monitors

Some of the modern ultra-high resolution video monitors are compressing text or overlapping displayed screen elements within the BullCharts window. A number of the BullCharts dialogue boxes have been modified to “auto resize” to address this issue.

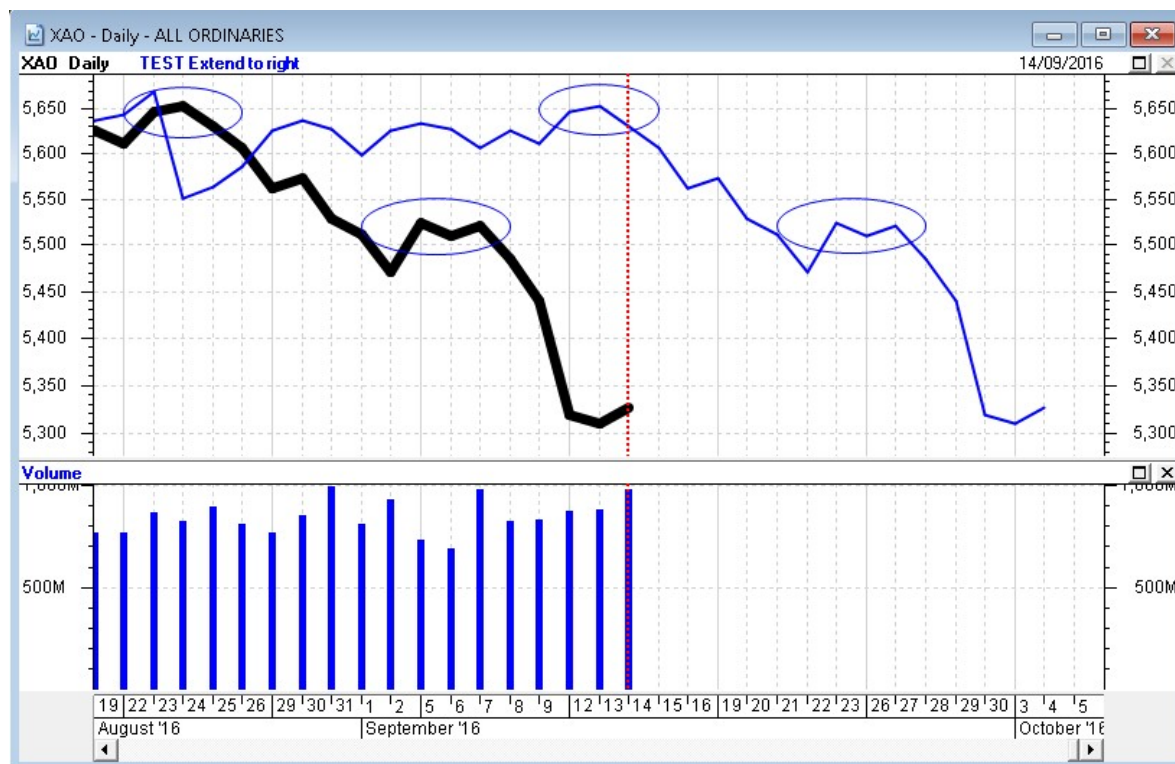
Even so, there might still be an issue in some situations (eg. in the BullCharts Control Panel).



New BullScript function — `extend_to_right`

A new BullScript function has been added to “extend a plot to the right”. It is demonstrated with the following example, and with reference to the daily price chart of the All Ordinaries (XAO) index below (note the thick black line is the XAO index):

```
[extend_to_right=14; target=price]  
hist(Close,14);
```



On this chart, the standard function `hist(Close,14)` is the thinner blue line running across the chart, but only up until the date of the vertical dashed red line (the latest date — 14th September). The rest of the blue line to the right of that date (and which is falling across the chart) is a result of the function: `extend_to_right=14`

Don't forget the `hist(Close,14)` function basically takes the plot of the Close price, and offsets it by 14 bars (in this case) to the right; but would normally not plot anything on the chart beyond the date of the latest data.

We can see in this example that when the `extend_to_right` function is used in conjunction with a function such as `hist`, it extends the plot of the `hist` function to the right. This makes the plot of `hist` complete for all of the available price data.

Note in this example that the parameter in the `hist` function is 14 bars, and the parameter in the `extend_to_right` function is set to the same value.

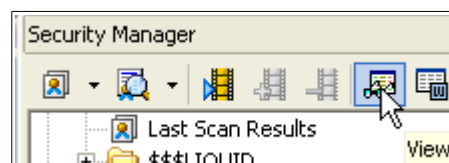
Detailed WatchList — new items

The Detailed WatchList feature was added into BullCharts in Version 4.0 (see screen shot below), and it now has two more fields added:

- VWAP, and
- Market Cap.

Code	Last	%Mv	BuyPrice	QuanAsk	SellPrice	QuanBid	High	Low	Volume	Status	TradedTime
ACR ▲	1.570	2.951	1.565	1,551	1.575	1,034	1.590	1.500	755,628	OPEN	12:02:40
BHP ▼	39.040	-0.153	39.040	1,880	39.050	1,395	39.120	38.870	1,655,382	OPEN	12:02:40
CBA ▲	82.340	0.415	82.340	436	82.350	364	82.380	81.920	358,744	OPEN	12:02:48
NAB ▲	34.835	0.418	34.830	6,169	34.840	12,211	34.850	34.620	1,329,222	OPEN	12:02:51
TLS ▲	5.440	0.184	5.430	260,682	5.440	687,592	5.465	5.430	5,298,450	OPEN	12:02:39

To view the Detailed WatchList, either double-click on a watchlist (in the upper panel of the Security Manager), or select the watchlist (by clicking on it once to view the contents), and then use the button on the Control Panel window (see screen shot at right).



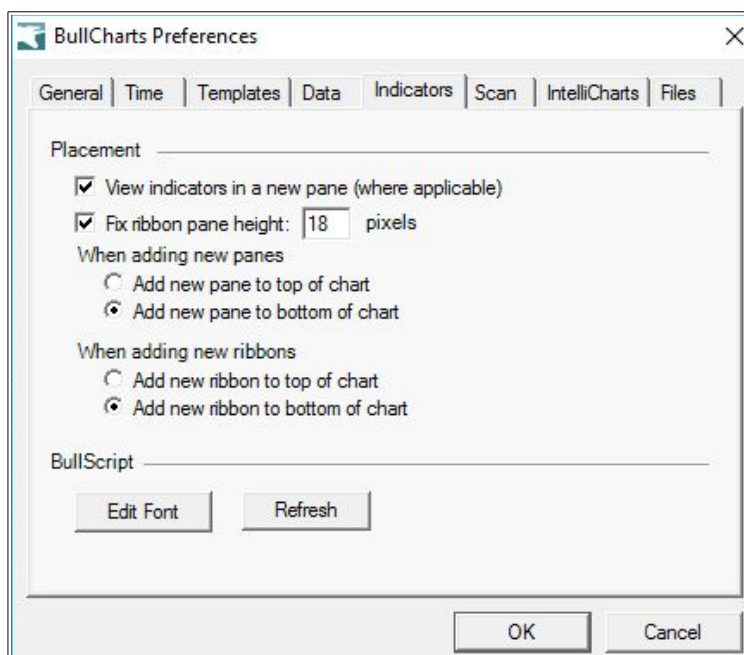
To add or remove columns to the Detailed WatchList window, make sure it is the active window (click in it once), then use the menu option: **Format > Current View...** then select the data items to be added to, or removed from, the Detailed WatchList view.

Ribbon pane height

A number of chart indicators can be applied to the price chart as a “ribbon” across the bottom of the chart. A recent update enable the height of the ribbon to be increased.

It is now possible to set the ribbon height to zero to hide the ribbon.

(Another way to hide a ribbon indicator is to use the Layer Manager, and untick its check box).



View a Chart Memo (Ctrl+M)

The Chart Memo is an existing feature in BullCharts. When viewed it is the bottom portion of the chart window, and can contain any textual information relating to that security (see screen shot below). You can view the memo text, or hide the memo text, and the memo text is associated with that particular security (regardless of which watchlists the security might be in).

To view the Chart Memo note for a security, use the menu option: **View > Show Chart Memo**, or use the keyboard shortcut Ctrl+M.

Note that the keyboard shortcut has been changed from Ctrl+W to Ctrl+M as it conflicted with the use of Ctrl+W to create a watchlist in some circumstances (eg. when viewing the results of a scan).

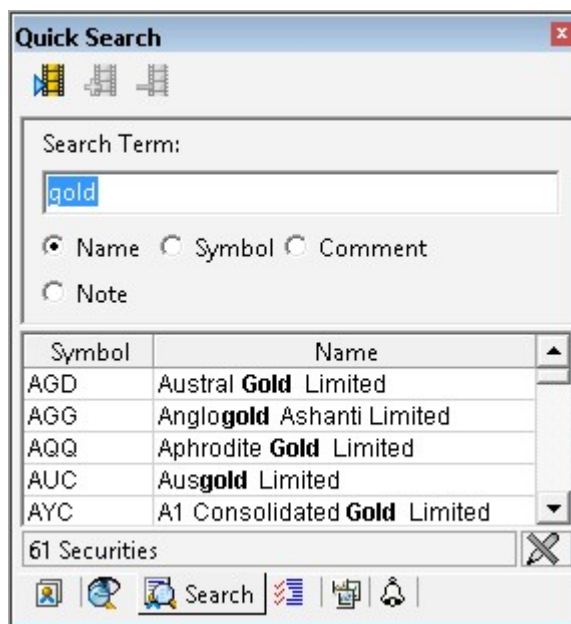
The following screen shot shows the Chart Memo pane across the bottom of the chart, containing a couple of words.



BullCharts Quick Search

The BullCharts search facility has been enhanced. Use the “Quick Search” facility within the BullCharts Control Panel (remembering that the Control Panel includes six tabs across the bottom for: Security Manager, Scan Manager, Search, Layer Manager, Workspace Manager, and Alerts — see the screen shot at right).

In the example search at right, the text “gold” was searched for, and some of the resulting securities which contain this text string in the name are shown.



Search for comments

In BullCharts it is possible to include some comment text with a watchlist entry, or to a “chart memo” note. It is now possible to search these comments for a particular text string.

In the example at right, the search was for a text string within the “Comment” field.

Symbol	Name	Comment
COM.BRENT_NYMEX	Brent Oil Nymex	25/3/16, 10/3/16
COM.BRTCR	Brent Crude Oil	
COM.COBALE_CASH	Cobalt Cash	
COM.COBALE_M15	Cobalt 15-Months	
COM.COBALE_M3	Cobalt 3-Months	

In the next example (below), there is a text string “Test Note” included within the Chart Memo Note for the security “NASDAQ.MSFT” (Microsoft on the Nasdaq exchange). For this example we searched for some text within the “Note” field. (To view Chart Notes for any stock, use the menu option: **View > Show Chart Memo** (or <Ctrl>+M).



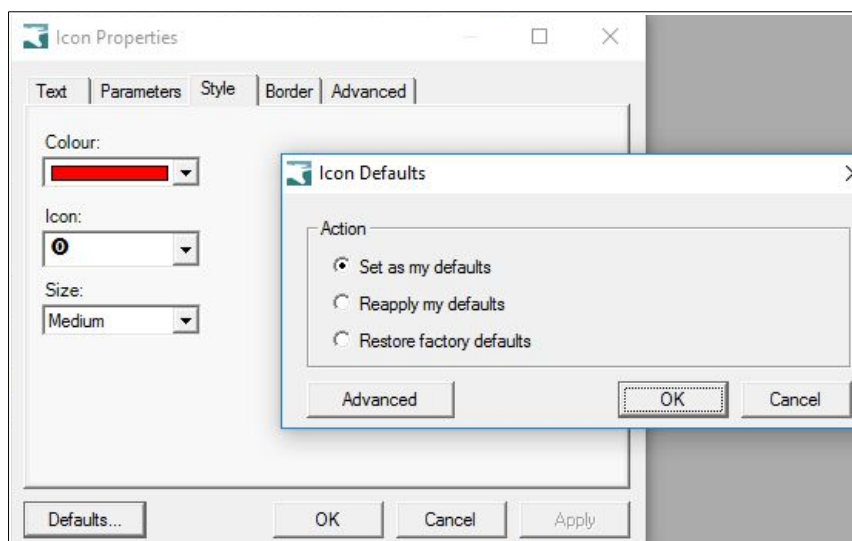
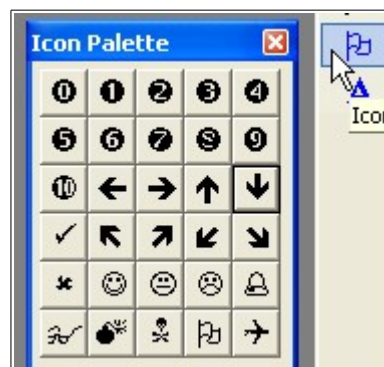
Icon — set default colour

A number of “icons” are available to apply to a price chart.

See the palette of available icons in the screen shot at right. These are available from the button on the “Line Studies” toolbar.

It is now possible to set the default colour for any particular icon. After applying an icon to a price chart, view the Icon Properties dialogue, as shown in the screen shot below (display this by right-clicking on the applied icon, and select “Icon Properties” from the drop-down menu).

Adjust the properties as desired, then click on the “Defaults...” button in the bottom left corner of the dialogue box, and select “Set as my defaults” and click on “OK”.

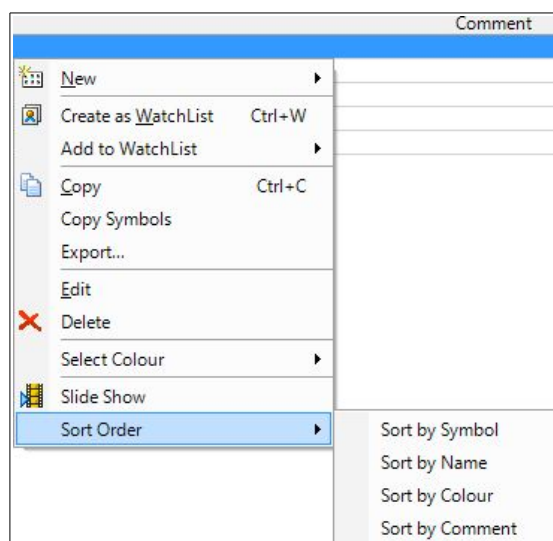


Sort Watchlist entries by the Comment field

The watchlists within the Security Manager include three columns:
Symbol, Name and Comment.

It is now possible to sort the watchlist entries by the text in the Comment column.

To do this, right click on the watchlist, and select "Sort Order" from the drop-down menu.



Comment field expanded

The Comment field in the watchlists can now accommodate up to 250 characters (in version 4.3.1.1).