CORTEX7

Bitcoin Charting/Trading Application

For Windows, Linux, Mac & Android.

https://www.cortex7.net

User Guide Version 1.07b

Table of Contents

Getting Started

The first thing you will want to do is download and install the [Cortex7 client](#).

The Cortex7 menu is opened by tapping the menu activation button as shown in the screenshot to the right.

This button is always present at the bottom left of the chart area.

The button is transparent when the menu is closed, so it may be difficult to see until you get used to it.

Once you've activated the main menu you will be presented with a row of icon buttons, these buttons give access to all of the various menu panels:

Details about each individual menu panel can be found further in this document.

How Do I Chart Bitcoin?

The first thing you will have to do is sign up for an account with Cortex7. If you don't have an account yet then sign up here.

In order to trade in live bitcoin markets your account will need to be loaded with some subscription.

You can check your remaining SUBSCRIPTION STATUS in the Menu Panel: App Settings.

You can also check your remaining subscription by logging in to your Cortex7 account.

Binding the Client App to Your Account.

You need to bind your Cortex7 client application to your Cortex7 account held on the Cortex7 server.

You only need to do this once:

1. Obtain your NETCODE from your online Cortex7 account

2. Start up your Cortex7 client application.

3. Open menu panel: Menu Panel: App Settings

4. Tap menu item: Subscription Status

5. Tap menu item: CODE to enter the keyboard.

6. Type or paste your NETCODE into the keyboard and press "ENT".

7. Now press the "VALIDATE NET CODE" menu item.

8. You should be greeted and told about your subscription status.

9. Press the "OK" button.

Entering Your Exchange API Details

Cortex7 has to talk to the bitcoin exchange that you use (BTCe, Bitstamp, Kraken, BTC China etc.) in order for it to place orders and retrieve account and order information.

To enable this you need to enter your exchange account API key/secret pairs into your Cortex7 user account.

Note 1: Make sure that you ONLY enable "trading" and "account information" in your exchanges account API page. DO NOT enable "withdrawal".

Note 2: You should copy and paste the information from your exchange account straight into your Cortex7 account.

Creating a New Bitcoin Chart Work Space

Follow these steps:

1. Open menu pane: Menu Panel: File

2. Tap menu item: New

3. Wait for the available symbols to be loaded.

4. Tap menu item: SYMBOL

5. Select a symbol by dragging the selector wheel (e.g. "BSTA_BTC_USD").

6. Tap the selector control to lock in your selection.

7. Tap the "NAME" menu item.

8. Enter any name you like using the keyboard (e.g. "MY BITSTAMP USD").

9. You can ignore "CRYPTSY PAIR". (see Using Cortex7 With Cryptsy)

10. Press the "OK" button.

If you have never charted this exchange/fiat combination in the past then Cortex7 will download the entire trade history at 1 minute trade resolution. This could take some time, you will be presented with the progress. This initial long-time update is a one off, the next time you create or load that exchange/fiat pair Cortex7 will only grab new data since last update. All data gets cached to your computers hard drive (don't worry it is quite compact). Once data has loaded; the chart will display and you will be able to interact with it.

Using Cortex7 With Cryptsy

This section will exist in a future release of this document.

The User Interface

Cortex7 has been designed to maximize the chart area, this is especially important for devices with smaller screens like phones and tablets.

The following methods can be used for user input:

- Mouse including left button and scroll wheel.

- Touchscreen, only single finger actions are received.

- Joystick, a cursor appears, move it and press any button to tap.

- Keyboard, can use physical keyboard to type text in.

Manipulating the Chart

Scroll in time by dragging the chart left or right.

Zoom in time by dragging the chart up or down.

Tap and hold anywhere in the chart to pop-up the chart settings panel.

Query Candle/s

A single tap on the chart will pop-up a candle query panel, allowing you to see information about a single chart candle.

If you leave the panel open and tap the chart somewhere else then another panel will open, this will show range information about the range of chart candles selected.

Any open query panel can be dragged horizontally or closed by tapping it.

Query Order/s

Tap an order on the chart to pop up an order information panel.

If the order is unfilled then the pop-up panel will include three buttons:

> 2 ARROWS: will move the panel to the next higher/lower order by price.

> CANCEL X: allows you to cancel the open order.

Only one ASK panel and one BID panel can be activated at once. If you activate a BID and an ASK panel then you will also be shown the percentage gain/loss between the two orders (exchange fees are considered in the calculation).

Place an Order

Simply tap and hold anywhere on the right hand price axis to place a limit order with the exchange.

Menu Panel: File

This menu panel allows you to load/save/create work space files.

User Guide

Gives you the option to open up this user guide PDF document.

Loaded

At the top of the file panel you will see the "LOADED" file. This is the name of the currently loaded work space file.

Note: this control is for information only and is not interactive.

Load

Click "LOAD" and then select the file you wish to load using the selector wheel, then press "OK".

Save

Click "SAVE" at any time to make sure your working file is saved to disk.

Note: This function is fairly redundant as most changes you make to your work space are automatically saved anyway.

Save As

You can use this function to rename your work space, simply "SAVE AS" a new name and then "DELETE" the old named file.

New

This allows you to create a new work space file, after pressing "NEW" you will be

presented with the new file panel, follow these steps:

1. "NAME" the file anything you like, you are limited to 16 characters.

2. Select the "SYMBOL" that you wish to chart using the selector wheel. If you want to use "CRYPTSY" or "YAHOO" then refer to the Cryptsy or Yahoo section of this user guide.

3. The "CRYPTSY PAIR" entry can be ignored, unless you want to use "CRYPTSY", in which case refer to Error: Reference source not found.

4. Press the "OK" button to create the new file.

The new file will now initialize. If this is the first time that you have charted a particular symbol then you will be in for a considerable wait as Cortex7 downloads all historical data at 1 minute resolution. This historical data gets saved to your systems storage drive, so the next time you create or load the symbol it will be faster.

Delete

Use this function to delete any existing file from your device.

Note: The file is not actually deleted, the file gets emptied and is no longer visible in the "LOAD" panel. You can re-use the deleted file name in the future without issue. To permanently delete the file you will need to delete it manually from your system.

Exit Cortex7

Press "EXIT CORTEX7" and you will be prompted to exit the app.

Note: You can also exit the app at anytime by pressing escape on your keyboard or

tapping the back button on your device

Extra Menu

This is a sub menu that contains various extra menu items listed below:

Web Site

Gives you the option to browse to the [Cortex7 Homepage](#)

Working Dir

This opens up a system file explorer at the root of the Cortex7 storage directory.

Note: On some operating systems this will instead only display the storage path to you, and then you must explore the directory in the operating system yourself, you can use a third party file browser application to do this.

Restart Cortex7

Press "RESTART CORTEX7" and you will be prompted to restart the app.

Note: This can be useful if for some reason the app did not initialize properly.

⚙️ Menu Panel: App Settings

These items allow you to configure the look and feel of the entire application as well as a few other functions. Most settings in this panel will change the application as it appears on all work space files, think of these as global settings.

Cortex7 Version

Tap this menu item to view which Cortex7 version you are currently running. You have the option to check for a newer version online and also you can browse to the Cortex7 download page.

Subscription Status

Your subscription status is displayed at the top of the panel, if it says "TRUE" then you are fully subscribed and Cortex7 will have full functionality. If it says "FALSE" then you will still be able to chart live bitcoin prices, but you will not be able to do in-app trading.

Note: Changes made in this panel will only take effect if you press the "OK" button at the bottom of the panel, pressing "CANCEL" will undo any changes made here.

Code

Tap "CODE" and you will be able to enter your netcode. Your netcode is a 16 character random key that binds your Cortex7 client to your online Cortex7 account.

Note: You need a valid netcode in order to chart live bitcoin prices on various bitcoin exchanges. You can obtain a free netcode by signing up for a Cortex7 user account.

Validate Net Code

Tap "VALIDATE NET CODE" and the application will contact the Cortex7 server and check the status of your netcode and subscription.

Get A Net Code

Tapping this item will guide you to obtain a free netcode by signing up for a Cortex7 user account.

Gui Config

This panel allows you to tweak the look and feel of the GUI (Graphical User Interface).

Note: These settings will affect all instances of Cortex7, regardless of what work space file you load.

Opacity

This changes the opacity of most button and menu items in the application. A lower opacity will allow you to read the chart underneath any open menu panels.

Fx Volume

This changes the audio volume for all alerts and GUI sounds.

Color

Use the selector wheel to select your favorite color scheme.

Rotation

Use this to permanently set the applications screen rotation.

Note: The "AUTOMATIC" setting may not work on all operating systems.

Resolution

This sets the texture resolution for the main chart only. On some very high resolution displays (like retina phones) you can use this to make the chart and GUI more legible.

Full Screen

On desktop computers this option should remove the window border from the application for maximum usage of screen real estate.

Note: You can also toggle full the screen mode by pressing key combination ALT+ENTER on your desktop computers keyboard.

Test 3d

Future public versions of Cortex7 will be compatible with virtual reality displays such as the Oculus rift. This feature allows the 3D integrity of the application to be tested on all devices during development.

RSS Feeds

The RSS feed is a scrolling text ticker, if you click the scrolling text you have the option to browse the corresponding web page for the article in the feed.

The settings in this panel are self explanatory and you should be able to work them out by experimenting.

System Log

Cortex7 outputs various messages and other information to its text log.

Show Log

Tap this to display the log file.

Log Variables

Enable this check box and the log will contain all user made changes to variables.

Log To Clipboard

This is handy for debugging issues that may cause the application to crash. Every time Cortex7 writes to its internal log file it will also copy the whole log file to your systems clipboard.

Note: This feature may not work on all operating systems.

Debug Display

Cortex7 is written on top of a 3D engine, enabling this check-box will display a real time display of various parameters relating to the 3d engine (frame rate, draw calls, triangles, objects, memory Mb).

Screenshot (1:1)

Tapping this will invoke a screenshot of the current application. The screenshot will be captured into a JPG file with the dimensions being exactly the same as they are displayed on the screen at the time of capture. You have 10 seconds allowing you to open up a sub panel etc before the shot is taken. Screenshots are stored in the "SCREENSHOT" sub-folder of your Cortex7 working directory.

Screenshot (FORUM)

Same as the screenshot function above. Except this one will force the output JPG to be 600 pixels wide with a small file size, suitable for posting in online forums.

Show Boot Logo

When this check-box is activated Cortex7 will play the logo video with music every time the application starts up.

Open Last File

When this check box is activated Cortex7 will load up the last loaded work space file when the application starts up. If you wish to run multiple Cortex7 instances, each one charting a different symbol then you will find it easier to leave this unchecked.

⬤ Menu Panel: Chart Settings

This allow you to alter various chart and work space related settings, all of these settings get stored in your current work space file.

Note: You can also activate this panel by tapping and holding anywhere in the live chart.

Live Chart

Settings related to just the displayed chart.

Total Candles

This specifies how many candles are displayed in Cortex7.

Note 1: If you are subscribed and plan on doing active trading then we recommend keeping this below 1000 candles. The reason for this is that you will have less filled orders visible in the chart and this will lessen the likelihood of having problems updating filled order status.

Note 2: With a 1 minute candle period it can be quite convenient to set this to 720 in order to get a 12 hour overview, especially good for tweaking bot trading as you are able to tune the bot for recent price behavior.

Chart Type

This specifies how the price data is displayed in the chart. Select your option using the selector wheel.

Candles Raw

This displays open, high, low, close (OHLC) candles using the raw trade data as obtained from the current exchange.

Candles Fix

This makes all the candles open prices flow from the previous candles close price. Some people prefer this mode for visually analyzing short term trends.

OHLC Bars Raw

This displays open, high, low, close (OHLC) bars using the raw trade data as obtained from the current exchange.

OHLC Bars Fix

This makes all the bars open prices flow from the previous bars close price. Some people prefer this mode for visually analyzing short term trends.

Line Close

This just displays a line plot that joins each close price to the next.

Candle Period

This specifies how many minutes of trade data are represented by one chart candle. You may find it useful to use larger candle periods on exchanges with very low volume.

Note 1: If you are engaging in robotic trading or high frequency hand trading then it is recommended that you don't make this too high. A general rule for robotic trading is: keep the total chart time in the work space <= 24 hours.

Note 2: That the chart front candle will still get refreshed once a minute despite what value this parameter takes.

Candle Size

This allows you to adjust the physical appearance of each candle or bar in the chart.

Pad Y Percent

This allows you to specify how much free space appears above/below the chart plot.

Hour Offset

Use this setting to calibrate your chart to your local time. If you set this to zero then the time displayed in the chart will be UTC±0. You should adjust this so that the chart front time is in sync with your local time.

Note 1: You may have to adjust this twice a year to compensate for summer saving times.

Note 2: This is purely aesthetic and having it set wrong will not affect the functionality of robotic trading etc.

Date Format

Choose your preferred date format.

DD, MM, YY = Day, Month, Year.

Live Ticker

This allows you to configure the top left live price ticker panel. The ticker panel is titled with the currently loaded work space file name.

Type

Specifies the type of ticker panel to display

Detailed

Shows this data in the panel.

VOL : trade volume, time period varies with exchange).

HIG : highest price, time period varies with exchange).

LOW : Lowest price, time period varies with exchange).

LST : Last trade price, can be delayed up to 30 secs).

ASK : The lowest ask price, can be delayed up to 30 secs).

BID : The highest bid price, can be delayed up to 30 secs).

SPR : The percentage spread between ASK and BID).

Big Average

Shows the current average trade price (time period varies with exchange).

Big Last

Shows the latest trade price (can be delayed up to 30 secs).

Big Spread

Shows the spread percentage between the latest highest ASK and lowest BID in the order book (can be delayed up to 30 secs).

Big Account

If you're trading then this is the ticker panel for you, it displays:

1. The latest trade price (can be delayed up to 30 secs).

2. The currently charted coin and fiat symbols.

3. The total value of your exchange account in both coin and fiat values. For example if you turned all available fiat into coin, this shows the total coin you would have at the current latest trade price. (this evaluation does not take order book slippage into account). And vice verse for the total fiat valuation.

4. Account makeup, the bar shows your coin/fiat holdings graphically, coin is green, fiat is red. Any holdings currently frozen in trades appear as a darker shade segment in the bar.

5. Score: this give an at a glance monitor of your account wealth that is independent of current holdings ratio and current price. If this number goes up then you are trading well. The score is simply the total coin value multiplied by the total fiat value.

Show Clock

Every ticker panel type can have a live clock displayed in it. This clock mirrors your current system time.

Currencies

When enabled, you can view the current live chart price in other currencies. Cortex7 gets the latest currency exchange spot rates (ask+bid*0.5) once every 5 minutes.

Chart Line

Enabling this check box will cause the live chart to have a labeled horizontal marker line displayed showing the live price on the chart.

Size

Change the size of the displayed ticker panel. The text will have aliasing or no

anti aliasing depending on the character size.

Opacity

Change the opacity of the displayed ticker panel.

Talk Period

The live ticker price gets updated once every 30 seconds. You can have Cortex7 talk out the live ticker price at intervals specified here.

Note: If you set this silent then all other voice signals in the application (stop loss and order filled announcements) will be muted.

Enable

Turn the whole ticker panel on or off.

Live DepthV

The DEPTHV overlay allows you to visualize the exchanges order book right in the chart. When enabled, the DEPTHV overlay will get updated once per minute.

Width

Horizontally scales the overlay so you can read it all without it going under the live ticker etc.

Opacity

Set the tickers opacity so you can read the chart data underneath it.

Enable

Turn the live DEPTHV overlay on/off.

Show Last 120

Tapping this will scroll the chart to the live data front and set the time window to display only the newest 120 candles.

Show Last 360

Tapping this will scroll the chart to the live data front and set the time window to display only the newest 360 candles.

Show All X

Tapping this will force the chart to show all candles in the current work space.

Data Dump

This is a special feature allowing one to make a data dump of all available price data stored at 1 minute resolution. This dumps all data on disk, not just the data currently displayed in the chart.

The data is dumped into an XML file within the Cortex7 working directory.

1 minute OHLCV candles are mapped to XML elements, the element key is the time stamp, specified in minutes past January 1st 2010 UTC. You will need to remap to unixtime if needed.

Note: The application may become unresponsive for along time when this function is invoked.

Del Chart From Disk

This function allows you to try and fix gaps in the chart data. The data relating to the chart is deleted from the local disk cache. Then when Cortex7 is restarted it will re fetch the historical data from the Cortex7 server. It will only fix the gap if the Cortex7 server has had it's data gap fixed, this may take up to 24 hours, or may

never be possible if the exchange went down for a period of maintenance etc.

Menu Panel: Tech Analysis

This panel controls all available technical analysis chart overlays and underlays.

Note 1: The top section of the panel contains special technical channel type overlays, you will notice these overlays have abbreviated names in brackets. These special overlays may be used by the robot for automatic trading. These special indicators contain a "BACKTEST" information display, this specifies how much a robot would have made if it had traded lightly using the channel signals. The back-test includes trade fees in its calculation, see the Menu Panel: Robots section for further information.

Note 2: You can see which overlay indicator is currently being used for robotic trading; the overlay name will have a small robot icon next to it.

Average Chan (AVGC)

The average channel indicator is a nice simple indicator: The center line is the moving average signal. The upper and lower lines represent values that are ±X% above or below the average center line.

Period

Specifies the number of chart candles that are considered by the moving average window. A higher period will give a smoother average but it will also lag in time more also. In general larger periods are more useful for analyzing trends over larger time frames

Exponential

In exponential mode the moving average function considers newer candles

with a higher weighting than older candles, this results in the average signal containing newer information and being less laggy.

Upper%, Lower%

Tweak the upper and lower channels to move the upper and lower channels on the chart.

Bollinger 1 (BOL1)

Developed by John Bollinger, Bollinger Bands are an indicator that allows users to compare volatility and relative price levels over a period time. The indicator consists of three bands designed to encompass the majority of a security's price action:

A simple moving average (SMA) in the middle.

An upper band (SMA plus X standard deviations).

A lower band (SMA minus X standard deviations).

Standard deviation is a statistical term that provides a good indication of volatility. Using the standard deviation ensures that the bands will react quickly to price movements and reflect periods of high and low volatility. Sharp price increases (or decreases), and hence volatility, will lead to a widening of the bands.

Bollinger 2 (BOL2)

This is an enhanced Bollinger band indicator. It can do all that BOL1 can do and more. BOL1 was only included because so many users are already familiar with it.

BOL2 has an exponential option for the moving average. Activating exponential will make the indicator react more quickly and reduce lag. Exponential can give better trading results.

BOL2 also allows you to specify the upper and lower channel deviations separately. This can be very useful, for example during trends you can introduce asymmetry

into the upper and lower channels to help pick the highs and lows from the overall price signal.

Price Chan (CHAN)

The price channel gives you an at a glance view of the lowest/highest trade price over the specified PERIOD of candles. The average of the upper and lower channel is also rendered as the middle line.

Note: Tweaking the hi and lo offsets allows you to adjust the trade frequency when using this indicator as a robotic trade source.

Period

The lowest/highest trade price is calculated by considering candles in the windows covering (now candle - PERIOD) to (now candle).

Gain Hi

The whole low channel gets multiplied by this value. The channel is moved relative to the middle line. Setting to 1 gives a normal price channel. Above 1 will raise the line, less than 1 will lower it.

Gain Lo

The whole low channel gets multiplied by this value. The channel is moved relative to the middle line. Setting to 1 gives a normal price channel. Above 1 will lower the line, less than 1 will raise it.

Extreme

When EXTREME is selected then the highs and lows of each candle are considered in the calculation. When EXTREME is not selected then only the close prices of each candle are considered.

Averages

These are two individual moving average indicators, each with the option for exponential or simple calculation.

RSI

The Relative Strength Index is an extremely useful and popular momentum oscillator. The RSI compares the magnitude of a securities recent gains to the magnitude of its recent losses and turns that information into a number that ranges from 0 to 100. It takes a single parameter: the number of time periods to use in the calculation.

Overbought/Oversold

It is recommended to use 70 and 30 as overbought and oversold levels, respectively. Generally, if the RSI rises above 30 it is considered bullish for the underlying stock. Conversely, if the RSI falls below 70, it is a bearish signal. Some traders identify the long-term trend and then use extreme readings for entry points. If the long-term trend is bullish, then oversold readings could mark potential entry points.

Turning Points

Strong turning points at extreme values can represent buy and sell signals, in the screen shot a buy signal is highlighted. Notice how the buy signal is a turning point upward that occurred below the 20% line.

Divergences

Buy and sell signals can also be generated by looking for positive and negative divergences between the RSI and the underlying stock. For example, consider a falling stock whose RSI rises from a low point of (for example) 15

back up to say, 55. Because of how the RSI is constructed, the underlying stock will often reverse its direction soon after such a divergence. As in that example, divergences that occur after an overbought or oversold reading usually provide more reliable signals.

Center Line Crossover

The center line for RSI is 50. Readings above and below can give the indicator a bullish or bearish tilt. On the whole, a reading above 50 indicates that average gains are higher than average losses and a reading below 50 indicates that losses are winning the battle. Some traders look for a move above 50 to confirm bullish signals or a move below 50 to confirm bearish signals.

MACD

Developed by Gerald Appel in the late seventies, the Moving Average Convergence/Divergence oscillator (MACD) is one of the simplest and most effective momentum indicators available. The MACD turns two trend-following indicators (exponential moving averages) into a momentum oscillator by subtracting the SLOW moving average from the FAST moving average.

As a result, the MACD offers the best of both worlds: trend following and momentum. The MACD fluctuates above and below the zero line as the moving averages converge, cross and diverge.

Traders can look for signal line crossovers, center line crossovers and divergences to generate signals.

Note: Because the MACD is unbounded, it is not particularly useful for identifying overbought and oversold levels.

Interpretation

As its name implies, the MACD is all about the convergence and divergence of the two moving averages. Convergence occurs when the moving averages move towards each other. Divergence occurs when the moving averages move away from each other. The shorter moving average (12-day) is faster and responsible for most MACD movements. The longer moving average (26-day) is slower and less reactive to price changes in the underlying security.

The MACD Line oscillates above and below the zero line, which is also known as the center line. These crossovers signal that the FAST EMA has crossed the SLOW EMA. The direction, of course, depends on the direction of the moving average cross.

Positive MACD indicates that the FAST EMA is above the SLOW EMA. Positive values increase as the FAST EMA diverges further from the SLOW EMA. This means upside momentum is increasing (buy).

Negative MACD values indicates that the FAST EMA is below the SLOW EMA. Negative values increase as the FAST EMA diverges further below the SLOW EMA. This means downside momentum is increasing (sell).

Signal Line Crossovers

Signal line crossovers are the most common MACD signals. The signal line is a SMOOTH EMA of the MACD Line. As a moving average of the indicator, it trails the MACD and makes it easier to spot MACD turns. A bullish crossover occurs when the MACD turns up and crosses above the signal line. A bearish crossover occurs when the MACD turns down and crosses below the signal line. Crossovers can last for short or long time periods, it all depends on the strength of the move.

Due diligence is required before relying on these common signals. Signal line crossovers at positive or negative extremes should be viewed with caution. Even though the MACD does not have upper and lower limits, chartists can estimate historical extremes with a simple visual assessment. It takes a strong move in the underlying security to push momentum to an extreme. Even though the move may continue, momentum is likely to slow and this will usually produce a signal line crossover at the extremities. Volatility in the underlying security can also increase the number of crossovers.

The Bar Chart Histogram

The histogram shows the difference between the MACD line and the SMOOTH line. This allows one to more easily visualize trends in the convergence and divergence of the MACD and SMOOTH line.

Full Stoch

This section will be developed in a future version of this document.

Volume

This displays the total trade volume for each candle in the chart. The maximum volume in view appears as a number next to the VOL label on the left of the chart area. You have the option of running it as a chart overlay or as a chart underlay.

Menu Panel: Trading

This panel is used for "Hand Trading". Below follows a description of the TRADING panel and it's sub panels:

Create Limit Order

A Limit order is an order that you put up on the exchange, you choose what price you want to buy/sell at and then wait to see if your limit order gets "filled".

Note:

BTC Avail

This is the amount of coin that you have available for placing orders.

USD Avail

This is the amount of fiat that you have available for placing orders.

Trade Type

If you wish to buy coin at a specific price then you must place a BID order. If you wish to sell coin at a specific price then you must place an ASK order. An easy way to remember is that **B**id is **B**uy.

BTC Amount

Here you specify exactly how much coin you would like to buy or sell. The panel should remember your last used coin amount every time you open it.

USD Price

Here you specify the fiat price that you wish to buy or sell your coin for. The

panel should default to the last known trade price as it appears in the live chart.

USD Total

This shows you how much fiat you will spend/receive if your limit order gets filled.

Buy Now Order

This panel allows you to instantly buy some coin by placing a "market order":

USD Avail

This is how much fiat you have available for purchasing coin with.

BTC Amount

This allows you to specify exactly how much coin you wish to purchase.

USD Approx

This gives you the approximate amount of fiat you will spend when the order is executed. It is only approximate because it does not take "slippage" into account, if you place a large order then you will end up buying some coins further down the book that will increase your overall fiat amount that you will spend.

Sell Now Order

This panel allows you to instantly sell some coin by placing a "market order":

BTC Avail

This is how much coin you have available to sell.

BTC Amount

This allows you to specify exactly how much coin you wish to sell.

USD Approx

This gives you the approximate amount of fiat you will receive when the order is executed. It is only approximate because it does not take "slippage" into account, if you place a large order then you will end up selling some coins further down the book that will decrease your overall fiat amount that you receive.

Refresh All Orders

Tapping this will cause Cortex7 to update all orders displayed on the chart.

Note: with large amounts of orders this may fail.

Refresh Open Orders

Tapping this will cause Cortex7 to update all unfilled limit orders.

Analyze Orders

Tapping this will pop-up an information panel giving you a breakdown of all trades that appear in the chart. It's a quick way of seeing how well you or your bot are performing.

Account Info

Tapping this will pop-up the account information panel:

BTC Avai

The amount of coin you can currently use for placing market or limit orders.

USD Avai

The amount of fiat you can currently use for placing market or limit orders.

BTC Froz

The amount of coin currently have tied up in unfilled limit ask orders.

USD Froz

The amount of fiat you currently have tied up in unfilled limit bid orders.

Tra Fee%

The current trade fee that your exchange is charging you in percent.

BTC Valu

If you used all your total fiat to purchase coin then this is approximately how much coin you would receive (does not account for slippage).

USD Valu

If you sold all of your total coin then this is approximately how much fiat you would receive (does not account for slippage).

Refresh Account Info

Tap this and Cortex7 will refresh your account information by querying the exchange. This button should be quite redundant, your account info will be automatically updated shortly after you or a robot places a trade. But sometimes this auto update may fail, in this case you may see all values in the panel reading 0. This button allows for a manual refresh in that case.

🤖 Menu Panel: Robots

Subscribed users are able to use Cortex7 for robotic trading.

Caution 1: Cortex7 is currently in beta phase, until stable release is achieved it is not recommended to set the robot up to trade with large amounts.

Caution 2: Always start any unattended robot testing with small coin amounts. Especially if you are playing with high trade frequency settings with channels operating close to the market price.

Note 1: As the robot runs (when it's enabled) it will always strive to keep your total account balance at a 50:50 coin:fiat ratio, it does this by slightly increasing order sizes on one side (up to 150%) as needed.

Keeping a 50:50 ratio hedges against changing macro trends while allowing for micro trends to be taken advantage of, it also stops the robot becoming all in or out due to any previous network issues: preventing the robot from drifting and thus allows for longer and more stable unattended robotic running periods. If you wish to hold an overall higher long term coin:fiat ratio then you should arrange an off-exchange storage method (cold wallet).

Note 2: When a robot is enabled you shouldn't hand trade along side it. The robot will clear any and all open limit orders before placing it's new order. This feature ensures that hanging limit orders are killed as soon as possible in the event of a network disruption.

Note 3: After you disable the robot it is your responsibility to cancel any trades it may have left behind.

Below the ROBOTS panel is described:

Type

Here you select what technical analysis channel overlay is used by the robot to trade with (see Menu Panel: Tech Analysis). When running, the robot will alternate between placing limit bid and ask orders with the exchange. It toggles between bid and ask whenever a placed order gets filled.

Bank Size

Here you specify how much of your total account funds you wish to allow the robot to trade with.

Stop Loss %

The stop loss system will force a buy/sell (market order) if the current market price deviates from the last sell/buy trade price by more than STOP LOSS %.

Note 1: To "disable" stop loss then you should set it to a large value like 99%. Setting it to zero will not disable it.

Note 2: When a robot fires the stop loss you will receive a voice alert "Stop Loss Activated", also a log entry will be created containing the associated order ID.

Rand Amount %

Setting this above zero will cause the robot to randomize each trade volume by this percentage amount. This is an attempt at masking the robotic trade as a human trade.

Cent Quantize

When checked Cortex7 will always place trades whose price is quantized to the

nearest 0.01 fiat currency unit. This is an attempt at masking the robotic trade, making it appear more like a human placed trade.

Swap Bid/Ask

This allows you to toggle the robots BID/ASK mode. For example: if the robot is bidding on the low channel then you can swap it's state using this function so that the robot will begin asking on the high channel.

This function can be useful after first starting Cortex7; You may decide that it is more likely that the price will rise above the upper channel before falling below the lower channel, in which case you would force the robot into ASK mode.

Enable

When enabled, the robot will iterate once every time the live chart data gets updated, usually per minute on an exchange with high enough volume.

Back test

This gives you a real time reading of the current robot setup, it tells you how it would have traded if it had been allowed to lightly (low volume) trade over the time period of the whole chart, this means all candles that are visible when fully zoomed out.

The calculation takes the stop loss system and exchange trade fees into account. You can tweak your stop loss and see real time the resulting trade performance as you do it. The calculation does not consider slippage.

The left hand number in brackets represents the number of trades that occurred in the back test, a higher number means a higher trade frequency.

Show Back Test

When enabled you can see the back test trades in the chart.

Buy signals = green squares.

Sell signals = red squares.

Stop loss buy signals = tall green rectangles

Stop loss sell signals = tall red rectangles

Notes On Using Robots

Choose a Resilient Solution

When tweaking and back testing robot parameters (stop loss and the associated technical overlay) it can be tempting to choose the highest gain you can achieve. But be warned this back test gain may not play out into the future as you would like.
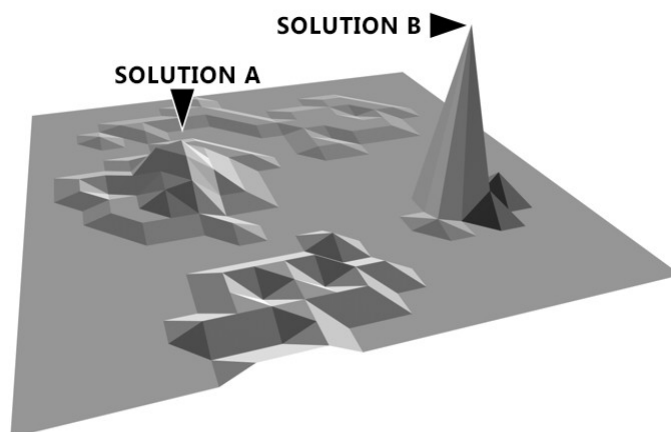
Sometimes the highest back test gain is a "brittle" solution, this means that if the chart behavior changes a little it may send you into loss territory. You can check if the back test gain is brittle by tweaking parameters slowly up or down, a brittle solution is when a small change in a parameter results in a drastic reduction in the back test gain.

A resilient solution will allow you to tweak all parameters up and down a little and still show a reasonable gain. The gain may reduce a little, but it won't fall off a cliff.

As an analogy, let us assume that the parameter space is only 2 dimensional; now let's imagine the back test gain plotted as height in this 3D graph:

SOLUTION A is lower, but it is resilient. You can move around a little on it without falling off.

SOLUTION B is higher, but it is brittle. It is easier to fall off the edge if you move horizontally a little (tweak a parameter).

Be Careful Fishing in Shallow Waters!

It can be tempting and fun to set the robot up to trade very frequently, by setting the channel to be very shallow. This will cause your robot to place bid/ask orders high up in the exchange order book where all the action is. But be warned… if you do this there is a good chance you will be sniffed out and eaten by the sharks.

As a general rule, the higher the amounts you wish to trade with, the less frequently your robot should be trading.

Give The Robot Some Wiggle Room

The robot will always strive to maintain a 50:50 coin:fiat ratio. It does this by increasing bid/or ask order sizes as required. It also will fire stop loss orders, these will cause additional asymmetry in the coin:fiat ratio.

As a general rule for good stable operation your robots bank allowance should not exceed 25% of your overall exchange account holdings (coin value).

YOU are a Necessary Component in the System.

The market changes it's "mood" from day to day and even hour to hour. It is up to you to learn to "drive" the robot as it trades. For example if a slow uptrend establishes itself then you might want to introduce a little bias into a channel

indicator (tweak up both the upper and lower channel). Sometimes a robot will trade well for days and then start to degrade, you will have to go in and re-tweak.

It Makes a Great Hobby.

You should consider trading with Cortex7 as an interesting hobby that has the potential to make a little money for you. As with any hobby you will need patience and perseverance to become better than average. It is recommended that you start trading using small amounts and only increase them as you gain experience. Any long term investments in bitcoin should be kept in a cold wallet. Only deposit bitcoin into an exchange that you can spare to play with.