

SmartButterflyX: Electronic Options Exchange Platform to Trade SmartButterfly Contracts **A New Way to Invest in Bitcoin's Price Action**

What is SmartButterflyX?

SmartButterflyX will be a revolutionary smartphone-based trading platform where users can trade SmartButterfly contracts on Bitcoin. The platform launches first as a game to solve a critical market structure problem: market makers won't commit capital to tight two-sided markets without evidence of sustainable order flow. The game generates that proof.

Why The Game-First Approach?

Traditional butterfly markets are fundamentally broken. Each butterfly requires four separate option legs, and even when individual options are reasonably tight (perhaps \$0.20 wide), the displayed butterfly becomes \$6 to \$10 wide with negative bids and negative marks - mathematical impossibilities. The mark (midpoint between bid and ask) is the key reference point traders use - when you enter a spread order, it defaults to the mark, then you adjust 1-2 cents above the mark to buy or below to sell, giving market makers incentive to take the other side. But when the mark itself displays as -\$0.32 or -\$1.05, the entire negotiation system collapses. Even sophisticated platforms like thinkorswim (25+ years, industry-leading) show distorted marks because they're derived from the four component legs. Harvesting baby butterflies is impossible when position values make no sense. SmartButterflyX creates butterfly utopia: transparent, algorithmically determined single-contract pricing where marks are accurate, the cheapest butterflies are furthest out-of-the-money, and the most expensive are at-the-money, exactly as it should be.

Butterfly Utopia: Potentially The First Truly Fair Options Trading Platform

For the first time, traders will experience transparent, fair pricing where they know they can get in and out within 0.5% of fair value every time. Users can "middle the market" by placing limit orders - if a butterfly is valued at \$300, bid \$298.50 and save the edge (though you'll need market movement or time decay to get filled). This fairness will attract millions of users who've felt exploited by traditional options markets. Market makers get the same edge-per-delta they're used to, but with superior inventory characteristics, minimal risk, and massive volume. What market makers lose in per-contract edge, they make up exponentially in volume and risk reduction.

The challenge: market makers won't commit until we prove consistent order flow exists. The game provides that proof while demonstrating that managing millions of low-delta butterfly contracts across platforms (CME, CBOE, etc.) with tight, transparent spreads and minimal hedging beats the current system where distorted marks limit butterfly spread volume annually to about a millionth of what it could be.

What is a SmartButterfly contract?

A SmartButterfly contract goes beyond standard listed legacy options butterfly spreads made up of call and/or put contracts. And as a bonus feature each SmartButterfly has concurrent alternative SmartBabyButterfly contracts embedded within it that can be harvested like paying oneself a dividend, skimming off profits or reducing one's cost basis.

What is a butterfly spread and what is a baby butterfly?

A butterfly spread is a way to invest in a future price-range of something such as a stock, commodity, or crypto currency (but for now we'll focus on Bitcoin). For example, one might forecast that bitcoin will be between \$30,000 and \$40,000 on the date exactly one month from today.

A SmartButterfly range is made up of a configuration of smaller SmartBabyButterfly ranges within it. More than you would think.

What can SBX do for you?

There are several camps for whom this can help in order of importance:

- 1) **The Bitcoin and Options Trading Uninitiated** get educated and onboarded to become new investors. This leads to what Michael Saylor says, that people have a real chance to become the best version of themselves.
- 2) **Options Speculators** gain new methodologies for trading.
- 3) **Bitcoin Hedgers and Dollar Cost Averaging (DCA) Practitioners** will perhaps utilize [The BTC Power Law](#) that informs us to likely support and resistance areas where one can possibly outperform DCAing by adding to position at support instead while ButterflyHedging / SlingshotHedging at anticipated resistance.

So more simply put...

SmartButterflyX is a very simple way to invest based on an anticipated price-range of where Bitcoin will be trading at a specific date in the future. Without SmartButterflyX, one would have to learn all the complexities of traditional options trading, which can take years. Our platform can get you up to speed in as little as 10 minutes with a short, animated tutorial.

How does it work?

Abstract

New users can start at Section 3 and read through Section 6 because this is all about teaching anybody, including the uninitiated, to be able to trade this new kind of option based on future price ranges of Bitcoin with no prior knowledge of options trading. This abstract, the Introduction (Section 1) and Section 2 are for people who already understand options so that they can compare and understand why the SBX technology is so revolutionary.

The SmartButterfly Contract is designed for Bitcoin at first but can be leveraged to any underlying asset later. Why just Bitcoin? It's because Bitcoin is a 24/7 market with worldwide buzz appeal and can be traded in any currency. We also imagine that eventually price ranges can be customized to the user's preference as long as it adheres to the SmartButterflies' symmetrical requirements. This could be a real game-changer in derivatives trading and you will see why when you get down to Section 4. This platform can become a uniquely successful onramp for not only derivatives trading but other kinds of financial investment opportunities. Let's first understand the foundation.

A SmartButterfly Contract is a version of a fungible, electronically traded options butterfly smart contract. This smart contract has an identical payoff profile to a traditional options butterfly spread. To trade a SmartButterfly no knowledge or education regarding the trading of individual puts and/or calls is required nor is it required to understand anything about exercise/assignment or delivery. It is only necessary to understand the pricing tables introduced in this paper and the associated video.

The object of a long butterfly is for the underlying price to land as close to the CENTER of a target range, as close to expiry as possible, understanding that butterflies are cheaper with more time to go, but profits can be made over time even if the underlying price is not within the targeted range. Also, one could liquidate, for a profit or to limit loss, long before the contract expires.

Currently, exchange traded butterfly spreads are considered 'Level 3' strategies that consist of 3 equidistant strike prices. SmartButterflyX's interface requires less than a 'Level 1' understanding where mass adoption can follow quickly for a profitable trading platform. This is because SmartButterflyX is more intuitive for users to simply choose a target price and how wide of a range they want to predict. For non-professional retail customers, there is no early exercise to deal with,

nor margin requirements because they can only buy, enjoying limited risk properties which most often carries lower risk for higher reward usually up until two weeks prior to expiry. Although butterflies have limited gain, every user can easily see what their upside potential can be owing to the transparent relative pricing attributes inherent in butterflies.

\$martButterflyX's mission is to simplify derivatives trading for anyone with a smartphone and trading account. Each \$martButterfly shares the identical payoff risk/reward profiles of a traditional standard call butterfly, put butterfly or an iron butterfly when involving the same strike prices and expiry date. These \$martButterflies are bought and liquidated directly by one trading account customer to a counter party via a \$martButterfly exchange, who would guarantee all payment and collection performance. The exchange will enforce its own margin requirements on the counterparty, a market maker, who is part of a consortium of liquidity providers.

In this paper, we propose a solution to the antiquated butterfly pricing quotes prevalent in all options trading platforms showing the useless butterfly spread bids, asks, lasts, opens, closes and marks (averages of bid and ask prices) based on the distorted, wide fluctuating bid and ask prices of the four individual put and call components of each butterfly. Our platform elegantly smooths all \$martButterfly spreads derived from competing market makers and exchanges according to a liquidity provider consortium where each member accepts \$martButterfly pricing curves for each expiry and honors every trade in any size with tight markets. Our network will timestamp transactions in a block chain and theoretical daily highs and lows will be accessible by hovering over each \$martButterfly price. Determination of settlement prices will correspond to the current expiry dates and times on exchanges such as Deribit which is 08:00 GMT.

Another important feature, necessary to ensure the prevention of errors in the \$martButterfly construction, is that this single contract cannot be disassembled by trading out of individual components such as single options or vertical spreads creating BrokenWing butterflies or slingshots; nor can those components be added to a \$martButterfly.

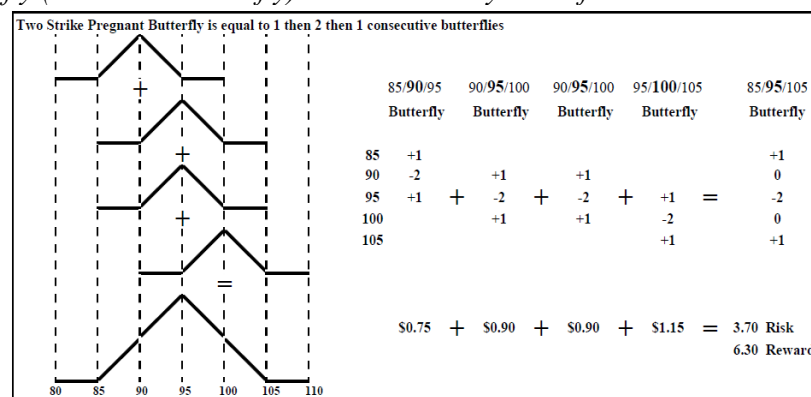
The most evolutionary \$martButterfly feature is that our technology makes it easy to perform the otherwise complex and often prohibitive trading activity known as harvesting baby butterflies. This concept was developed most successfully by CBOE Options Market Maker and original Market Wizard, Tony Saliba, in the late 1970s. Tony showed me how embedded within wider price-range (parent) butterflies synthetically exist narrower baby butterflies. Tony used to harvest baby butterflies, regularly for years and famously when he systematically and with extra profitability liquidated his SPX position that he accumulated during the Crash of '87 pandemonium. This amazing aspect of options trading is revived owing to today's technology and introduced in Section 4. We make it easy: when our customers harvest \$martBabyButterflies, \$martButterflyX shows that after each harvest, the user simply becomes less long the \$martBabies defined in the contract. The reason it is too complicated in legacy options markets is because customer positions will be short babies within long parent butterflies making it hard to understand convoluted positions in account statements. To prove the concept of embedded baby butterflies, here is an excerpt from my book, "Options Trading: The Hidden Reality" chapter 6 entitled "WingSpreads".

EMBEDDED BUTTERFLIES IN WIDE BUTTERFLIES

Exhibit 6–21 shows a 2-strike butterfly with a cumulative risk of 3.70 for a possible reward of 6.30. One can use this knowledge to help decide whether to unload one or more of the embedded butterflies whenever the price is attractive, or the adjustment is warranted because of market conditions.

EXHIBIT 6 – 21

Pregnant Butterfly (Two-Strike Butterfly) Contains 4 Baby Butterflies with 3.70 Risk and 6.30 Reward.



Butterflies with strikes with greater distances between the wings and the body are used to cover a bigger range of prices. An interesting aspect of this type of butterfly is that it has smaller (1-strike) butterflies embedded into it, and therefore it has the nickname, 'pregnant butterfly'. If one takes the distance between the wing and the body and squares that number of strikes, one will identify the quantity of smaller butterflies embedded in the larger one. In other words, a two-strike butterfly will have 4 'baby' butterflies (two at the center strikes, and two more, one at each end). A 3-strike butterfly will have (3²) 9 babies (three in the center, two adjacent ones in each direction away from the body and one more set in each direction) further toward each wing. A 4-strike butterfly will have (4²) 16 babies, and so on. They stack up on top of each other, forming a mountain, with most of them being at the body and the least amount being near the wings.

How does an understanding of these concepts help one to trade? By seeing where the inventory of butterflies exists the trader can then scrutinize the values embedded and perhaps sell off blossoming butterflies as the underlying visits different bodies, or cover (buy back) cheap synthetic verticals, as components of butterflies, when they are too cheap to remain short. We know that butterflies have their greatest value when they are ATM. They may reach an attractive enough level motivating one to sell, harvest profits and reduce costs.

Certainly, with 14 days or more left in the expiration cycle or in scenarios of high implied volatility, it may not be opportune to unload even an ATM butterfly, simply because it is the most valuable butterfly in the inventory at the current time. Individual market sentiment would have to play a role in the decision-making process.

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Why Legacy Platforms Can't Offer Harvesting

On a legacy options platform a butterfly is a bundle of separate option legs, so harvesting a Baby means selling a smaller butterfly against them, and the customer ends up holding short options inside a long butterfly. Take the first harvest in this paper's own example: buy the 40,000\$B (a \$10,000 range), then harvest its two 43,000\$B Babies:

	Legacy account statement	SmartButterflyX
Buy the 40,000\$B	+1 35K call, -2 40K calls, +1 45K call	40,000\$B × 1 (25 Babies)
Harvest 2 × 43,000\$B	adds -2 42K calls, +4 43K calls, -2 44K calls	43,000\$B Babies: 0 of 2 left
What the customer sees	+1 35K, -2 40K, -2 42K, +4 43K, -2 44K, +1 45K calls — six strikes, mixed long and short	One line: 40,000\$B × 1, now holding 23 Babies

On a legacy statement the result looks like a broken position: six strikes, mixed long and short, including short calls that broker risk systems may not recognize as defined risk. That can mean higher margin, a higher options-approval level, and multi-leg orders, each with its own bid-ask spread, just to get out. The risk never grew, but the paperwork did. A SmartButterfly is a single contract the customer only ever buys; a harvest simply makes them less long. That is why harvesting, practiced by professional traders for decades, has never reached the public, and why SmartButterflyX can bring it to them.

1. Introduction

Trading butterfly spreads on today's exchanges works well enough for most transactions but suffers from the inherent weakness of inefficient data derived from four separate option legs. This renders butterfly price values non-transparent and pricing models on retail platforms remain very weak even after a quarter century. The displayed butterfly bid-ask spreads are mathematically nonsensical - showing negative bids and negative marks when component leg spreads compound. A butterfly cannot have a negative price, yet legacy systems display negative bids and negative marks routinely. It makes butterfly spreads often impractical and often robs customers of decent fills and handcuffs them to positions that become difficult to liquidate in the final days of every expiry. It creates diminished trust in a trading environment that is easy to manipulate.

The world needs a platform with a trustworthy valuation of SmartButterflies that achieves consensus among market maker liquidity providers. SmartButterflies can't lie because their prices belong at certain algorithmic prices relative to each

adjacent SmartButterfly in all expiries. Warning: even SmartButterflies become naturally volatile due to exploding gammas manifest in volatile butterfly deltas during the last day or two in each expiry. The good news is most of the SmartButterflies will have already been liquidated by then. That should prove to be easy because butterflies have relatively tiny deltas and gammas for most of each expiry. Option volatility skews are formed by supply and demand so if the demand for a given strike throws a price out of whack, then its adjacent strikes should follow suit rendering Butterflies to remain relatively fairly priced. Certainly, there will be arbitrage opportunities between our platform and other Bitcoin options exchanges, utilized by professional traders.

It stands to reason that only a single butterfly price needs to be displayed representing fair value. The bid and ask can simply be derived consistently with a percentage envelope, displayed to users, such as a half a percentage point higher to imply each ask price and half a percentage point lower to imply each bid price. The half a percentage point profit 'edge' for liquidity providers should be manageable but also be negotiable and be adjusted upward as expiration draws nearer when Butterfly prices become naturally more sensitive to underlying price movement. For example, on the last day of expiry, it will be reasonable for market makers to collectively negotiate for higher edge fees, perhaps to as much as two percentage points to honor supply and demand of Butterflies. BTW: SmartButterflyX's revenue comes from a share of that edge fee.

2. The Market Maker Advantage: Edge-Per-Delta

SmartButterflyX represents a paradigm shift in how market makers should think about inventory profitability. Traditional options market making focuses on absolute edge (the bid-ask spread), but the real metric is edge-per-delta – how much profit per unit of risk.

Traditional Options (Wide Markets, High Risk)

- At-the-money options: 50 delta
- Market maker edge: \$0.50 to \$2.00 per contract
- Must constantly hedge deltas with futures; slippage costs erode profits
- High capital requirements for inventory
- Limited size capacity before hedging becomes prohibitive

SmartButterfly Contracts (Tight Markets, Minimal Risk)

- Typical butterfly delta: 2 - 5 (near zero most of expiry)
- Market maker edge: 0.5% to 1.0%
- Near-zero hedging required — deltas too small, naturally balanced
- Tiny futures slippage costs
- Minimal capital requirements
- Can handle 10x to 100x the volume with the same infrastructure

Market makers will learn that consistent small edges on massive, low-risk volume generates superior profits compared to their traditional options business. Butterfly market makers will generate enormous returns from:

Thousands of small, profitable trades daily

Near-zero delta inventory for most of each expiry cycle

Natural inventory balance (mostly short, occasionally long)

Massive size capacity: 10x to 100x more volume than traditional options

Predictable, sustainable profit streams

For the vast majority of butterfly positions and timeframes, deltas are so small that hedging requirements are minimal. Compare this to at-the-money options requiring constant delta hedging with futures, generating massive slippage costs that erode profitability.

Dynamic Spread Management

Edge fees remain negotiable and adjust based on market conditions:

Standard periods: 0.5% to 1.0% edge (attractive to users, profitable for MMs)

Volatile periods: 1.0% to 1.5% (when implied volatility spikes)

High gamma periods: 1.5% to 2.0% (final 1-2 days of expiry when butterflies become sensitive)

Extreme volatility: Up to 2.5% (market maker protection during chaos)

Users understand and accept dynamic spreads because they're still dramatically tighter than the 5% to 20% effective spreads they face constructing traditional butterfly spreads from four-legged options.

The Game Proves This Model

The smartphone game demonstrates:

Users actively trade butterflies when spreads are fair

Natural two-sided order flow emerges organically

Position turnover occurs throughout the expiry cycle

Harvesting creates additional trading activity

Market makers can manage inventory with minimal intervention

Once market makers see 100,000+ game sessions with consistent behavioral patterns, they'll recognize this as the best risk-adjusted profit opportunity in their careers.

3. Front Facing Profit Proposition for Retail Trading Customers (after becoming a real trading platform)

Newcomers will find a platform to purely invest in Bitcoin's future price range, whether higher, lower, or close to where Bitcoin is currently trading. The best part is they can risk as little as they want and when they win it can be many times greater than the amount that they risk, often 2X, 3X and possibly 10X or more. It is even theoretically possible to profit by 5000X even though, statistically, it is unlikely. Obviously, it would be unbelievably lucky, but anyone could risk \$1 (see Table 1-A where, in that example, it is possible to spend only \$1) on a far dated and/or far away SmartButterfly from the current Bitcoin price.

Some will want to speculate with a year to go by paying only \$1 or \$2, like a cheap lottery ticket, but realize that that is such a longshot because the pricing implies that Bitcoin can be anywhere in a year. All investments correspond to Bitcoin commodity futures expiries (expiration dates) as far out as one year and as close to one day. Those who join will receive free SmartButterflyX tokens and try to win more tokens or even real Bitcoin in trading contests. They can also use tokens to learn and get better at forecasting trading ranges from some of our renowned technical analysis charting and options trading educational partners. Certainly, they can start trading with real money too, but everyone can first see how good they can be without risking a penny.

Object of the game

All one does is guess a range where they think Bitcoin is likely to be trading at various times in the future. The closer that Bitcoin gets to the target 'CENTER' of their target range guesstimate, the more they will profit, especially if that happens closer to when the contract settles (called expiration or more commonly called 'expiry' or 'settlement'). That is when their trade, if worth anything (within their target range), will settle and be converted back into cash (hopefully more than the amount they risked) and appear in their account. The price range they pick can be between \$2000 wide and \$10,000 wide at today's prices, but that will change as Bitcoin prices increase.

We will keep this explanation as simple as possible for this paper so let's start with what we call a \$10,000 SmartButterfly (\$B) where one guesstimates a Bitcoin target range of \$35,000 to \$45,000.¹ We'll simply nickname this particular SmartButterfly the "**40,000\$B**" because that is the CENTER of the target range. (In SmartButterflyX Live this is the \$10K RANGE button. Legacy options traders call the same position a \$5,000 butterfly, because each wing strike is \$5,000 from the body; see note i.) Now, theoretically but rarely, the greatest possible value at expiry is \$5000 if Bitcoin lands exactly at the CENTER: **40,000** at settlement. The good news is that there is value even away from the CENTER. The way it works is that if it is \$1,000 away from the CENTER, it is going to settle at \$4,000. Simply subtract the amount away from \$5,000, the most it could be worth. So, say one paid \$500, that would mean that at settlement, Bitcoin can be 4500 away from the CENTER of **40,000** and they would still breakeven, neither profiting nor losing. There are two break-even points, in this example; 35,500 and 44,500 and you would get their money back (less the .5% edge fee each

way, in and out, or a total of \$5.00). Speculators will target different CENTERS, for example, **20,000\$, 25,000\$, 30,000\$, 35,000\$, 40,000\$** as well, or **45,000\$, 50,000\$, 55,000\$**, etc. from **5,000\$** to over **100,000\$**. Why? Because anything can happen and the further away from the target, the cheaper the trade will be for the same maximum possible payoff, hence greater profitability.

What is most elegant about butterfly pricing is that the sum of each row, below, would be exactly \$5000ⁱⁱ. Why is that special? Single options prices are open-ended owing to the effects of implied volatilityⁱⁱⁱ. So are many spreads but butterflies have limited risk and limited gain potential dividing up the 5000 maximum value where in the end, either one **\$** gets it all (rarely) or two adjacent **\$**s share the pot.

Table 1-A below shows \$martButterflyX Live in its White Paper (Demo) mode and these are the current prices for each \$10,000 \$martButterfly with the target CENTERS labeled in the top row.

Table 1-A
Bitcoin at \$39,530

+ ELASTIC FONTS																			RANGE		\$2K	\$4K	\$10K	\$20K	WHITE PAPER		TABLE 1	TABLE 2	HARVEST STEPS		DEC	0	2	4	TABLE 1-A · BITCOIN \$39,530 · \$10K RANGE · IV 52%									
▲ GREEN = UP · ▼ RED = DOWN · UNCHANGED																			AT-THE-MONEY																					↻ REFRESH CHAIN				
DAYS TO EXPIRY		FUTURES		IV%		15000	20000	25000	30000	35000	40000	45000	50000	55000	60000	65000	70000	75000	80000	85000	90000																							
0 DTE		\$39,530		52%		-	-	-	-	-	470	4530	-	-	-	-	-	-	-	-	-	-																						
1 DTE		\$39,588		52%		-	-	-	-	-	668	4874	257	-	-	-	-	-	-	-	-	-																						
2 DTE		\$39,647		52%		-	-	-	-	-	882	3745	452	-	-	-	-	-	-	-	-	-																						
9 DTE		\$39,786		52%		-	-	-	-	79	1285	2568	974	89	3	-	-	-	-	-	-	-																						
16 DTE		\$39,765		52%		-	-	6	228	1378	2866	1863	236	27	2	-	-	-	-	-	-	-																						
23 DTE		\$39,823		52%		-	-	23	363	1356	1776	1852	343	71	11	1	-	-	-	-	-	-																						
44 DTE		\$39,883		52%		-	8	133	621	1238	1326	924	470	190	65	28	5	1	-	-	-	-																						
79 DTE		\$39,942		52%		4	66	338	758	1839	1004	760	485	274	142	69	32	14	6	3	1	-																						

The 2nd row, labeled “0 DTE” (zero Days to Expiry), are today’s expiry settlement prices with Bitcoin at \$39,530, just \$470 below the **40,000\$** CENTER, which settled the **40,000\$** at \$4530 (5000 less 470 the amount away) and **35,000\$** at \$470 (5000 less 4530 the amount away). All the rest of the **\$**s are over 5000 away from Bitcoin’s settlement price so they are all worthless (5000 less a greater amount is negative, meaning zero). The 3rd line displays the prices with 1 DTE. The next several rows display longer DTEs, in the far-left column, with the bottom row being 79 DTE.

An important feature, Table 1-B shows elastic font sizes which exactly correlate to their values relative to the other **\$** values displayed, so it becomes more intuitive than the usual displays for the user to see the potential, good or bad, of their purchase. This helps options newbies to understand statistical distribution curves. Each expiry is a normal distribution and if one were to draw a line connecting the tops of each price in an expiry one would see the normal distribution curves of likely prices implied by how Bitcoin trades and how options should be priced. This, in many cases, will lower the barrier to further options trading for many who otherwise would be prohibited to trade Level 3 butterflies. Users will be able to toggle between a uniform font size and elastic fonts where they can zoom in on their phone.

Table 1-B
Bitcoin at \$39,530

+ ELASTIC TABLE RANGE \$2K \$4K \$10K \$20K WHITE PAPER TABLE 1 TABLE 2 HARVEST STEPS DEC 0 2 4 TABLE 1-A · BITCOIN \$39,530 · \$10K RANGE · IV 52% ▲ GREEN = UP ▼ RED = DOWN UNCHANGED AT-THE-MONEY REFRESH CHAIN																		
DAYS TO EXPIRY	FUTURES	IV%	15000	20000	25000	30000	35000	40000	45000	50000	55000	60000	65000	70000	75000	80000	85000	90000
0 DTE	\$39,530	52%	—	—	—	—	470	4530	—	—	—	—	—	—	—	—	—	—
1 DTE	\$39,588	52%	—	—	—	—	668	4074	257	—	—	—	—	—	—	—	—	—
2 DTE	\$39,647	52%	—	—	—	—	882	3745	452	—	—	—	—	—	—	—	—	—
9 DTE	\$39,786	52%	—	—	—	79	1285	2568	974	89	3	—	—	—	—	—	—	—
16 DTE	\$39,765	52%	—	—	6	228	1378	2866	1863	236	27	2	—	—	—	—	—	—
23 DTE	\$39,823	52%	—	—	23	363	1356	1776	1852	343	71	11	1	—	—	—	—	—
44 DTE	\$39,883	52%	—	8	133	621	1238	1326	924	470	190	65	28	5	1	—	—	—
79 DTE	\$39,942	52%	4	66	338	758	1839	1004	760	485	274	142	69	32	14	6	3	1

By resizing the window, all fonts resize relative to the largest font. In the case of 79 DTE below: 1004 at the **40,000\$** CENTER:

+ ELASTIC TABLE RANGE \$2K \$4K \$10K \$20K WHITE PAPER TABLE 1 TABLE 2 HARVEST STEPS DEC 0 2 4 TABLE 1-A · BITCOIN \$39,530 · \$10K RANGE · IV 52%																		
▲ GREEN = UP · ▼ RED = DOWN UNCHANGED AT-THE-MONEY REFRESH CHAIN																		
DAYS TO EXPIRY	FUTURES	IV%	15000	20000	25000	30000	35000	40000	45000	50000	55000	60000	65000	70000	75000	80000	85000	90000
79 DTE	\$39,942	52%	4	66	338	758	1039	1004	760	485	274	142	69	32	14	6	3	1

If, for example, a user bought the **40,000\$B** with 79 DTE, in the bottom row, it would cost \$1004 (plus .5% edge fee of \$5.02). One can use the tables to do visual ‘what-ifs’. The platform will certainly come with a proprietary user-friendly analyzer to perform any possible scenario over any time-period between now and settlement for any \$martButterfly such as, ‘what if’ Bitcoin goes up or down or stays in a range? Although changes in volatility upset this generality, just by looking at Table 1-A, for example, one could reasonably guesstimate possible performance if Bitcoin visits the price near **40,000\$B** CENTER when 35 days have passed from the bottom row of 79 DTE to 44 DTE (the next row up) where the value is \$1,326 (less .5% edge fee of \$6.63, if sold, yielding a 30.8% profit). With 23 DTE (two rows up) that same investment would be worth about \$1,776 (less .5% edge fee of \$8.88, if sold, yielding a 75.1% profit). An example of ‘what if’ Bitcoin goes up or down is explained in this section but always realize that the \$martButterfly value is generally the greatest for the \$martButterfly CENTER that is closest to the current Futures prices^{iv}.

Table 2 shows values with Bitcoin close to the **60,000\$B** and allocates the same proximity to the expiry settlement prices as before because Bitcoin settles at \$59,530, just \$470 below the **60,000\$B** CENTER. Here is something readers may have noticed and wonder why. Why, with 1 DTE, is the **60,000\$B** worth only \$3667 while, in Tables 1-A and 1-B, the **40,000** Butterfly is going for \$4,074? Great question! The probability model makes sense because the likelihood of nailing an expiry price on a greater Bitcoin price means it is harder to guess where it will land at settlement, hence distributing that sum of 5000 among more CENTERS.

To see what this looks like live and in real time, visit SmartButterflyX.com, where \$martButterflyX Live streams live Deribit prices; demonstration videos are also available on request. Most people are familiar with the wave of people in a huge stadium where one section stands up for a second and sits back down and the next adjacent column of people in seats does the same just a second later and so on as the standing sections creates a wave around the stadium. That is the same thing that will happen to the numbers in the table as the price of Bitcoin visits the various **\$B** CENTERS while the font sizes each also adjust to the changing values. There will also be a playback feature with speed controls to revisit the price action for any given period.

Table 2
Bitcoin at \$59,530

ELASTIC TABLE RANGE \$2K \$4K \$10K \$20K WHITE PAPER TABLE 1 TABLE 2 HARVEST STEPS DEC 0 2 4 TABLE 2 - BITCOIN \$59,530 - \$10K RANGE - IV 52% REFRESH CHAIN																			
DAYS TO EXPIRY		FUTURES	IV%	15000	20000	25000	30000	35000	40000	45000	50000	55000	60000	65000	70000	75000	80000	85000	90000
0 DTE		\$59,530	52%	—	—	—	—	—	—	—	—	426	4530	—	—	—	—	—	—
1 DTE		\$59,618	52%	—	—	—	—	—	—	—	1	406	3667	419	—	—	—	—	—
2 DTE		\$59,706	52%	—	—	—	—	—	—	—	11	3845	3172	718	12	—	—	—	—
9 DTE		\$59,795	52%	—	—	—	—	—	—	21	616	1328	1874	1894	186	16	4	—	—
16 DTE		\$59,883	52%	—	—	—	—	—	7	181	518	1227	1455	1815	618	147	31	7	1
23 DTE		\$59,972	52%	—	—	—	—	2	18	108	616	1228	1231	927	615	216	88	26	4
44 DTE		\$60,061.74	52%	—	—	—	3	38	245	351	795	986	983	727	523	335	275	98	41
79 DTE		\$60,150.74	52%	—	—	1	16	119	385	582	817	715	677	516	448	327	226	105	36

For practical purposes, say for example, one bought the **40,000\$B** with 79 DTE for \$300.71 when Bitcoin was at 59,530 as in Table 2. Visually it is nice to round to the nearest whole dollar, but the platform will allow you to add decimals to get the prices to the exact penny as in Table 3. Besides thinking the market will go down, one might own actual Bitcoin and wishes to make some money on the side, as a hedge, in the event of a Bitcoin decline rather than liquidate your Bitcoin, they too can make such a trade.

Table 3

ELASTIC TABLE RANGE \$2K \$4K \$10K \$20K WHITE PAPER TABLE 1 TABLE 2 HARVEST STEPS DEC 0 2 4 TABLE 2 - BITCOIN \$59,530 - \$10K RANGE - IV 52% REFRESH CHAIN																			
DAYS TO EXPIRY		FUTURES	IV%	15000	20000	25000	30000	35000	40000	45000	50000	55000	60000	65000	70000	75000	80000	85000	90000
79 DTE		\$60,150.74	52%	—	4.18	1.10	15.18	119.75	300.71	501.82	656.56	715.02	676.72	574.48	447.91	326.53	225.66	141.41	60.42

Notice all the numbers in Tables 1-A, 1-B & 2 that are greater than \$300.71 because those are examples of what one’s **40,000\$B** would be potentially valued making you profit that amount minus your investment of 300.71. Visually performing a ‘what-if’, ‘what if’ the price of Bitcoin drops say 5000 closer to 40,000, on the same day, it means the 300.71 is going to look more like the 501.82 (the **45,000\$B**) which is the next price over. If it drops 10,000 then it will look like 656.56 (the **50,000\$B**). Time passing as the market drifts closer to **40,000** makes you even more profitable, doubling, tripling, or even more depending on how far and how fast Bitcoin drops closer to **40,000**. Why would anyone

buy an \$B when it is 20,000 lower than the current price? For one thing, it happened but as you know past performance is no guarantee of future results.

4. A SmartButterfly Contract has Fungible Embedded SmartBabyButterflies

A SmartButterfly concurrently contains defined, fungible embedded SmartBabyButterfly positions (see last page) that can be harvested or sold off resulting for a more complex payoff risk/reward profile. Think of harvesting as if you were paying yourself dividends or taking some profits off the table or reducing your costs. Now, take that price of 300.71 again.

That 40,000\$B (\$10,000 wide SmartButterfly) was priced at \$300.71 in Table 3 and has 25 embedded \$2,000 wide SmartBabyButterflies. (Legacy traders would call each of these a \$1,000 butterfly; in SmartButterflyX Live it is the \$2K RANGE.) When a user harvests any of the babies then at settlement, if there is a payoff required the \$10,000 payoff will be equal to or greater than the \$2,000 payoff. The two rows in Table 4 show the SmartBaby values with 44 and 79 DTEs for each of the \$2,000 wide SmartBabyButterflies from and including the 35,000\$B to the 45,000\$B:

Table 4

+ ELASTIC TABLE RANGE: \$2K \$4K \$10K \$20K WHITE PAPER TABLE 1 TABLE 2 HARVEST STEPS DEC 0 2 4 TABLE 2 - BITCOIN \$59,530 - \$2K RANGE - IV 52% ▲ GREEN = UP - ▼ RED = DOWN - UNCHANGED - RT-THE-MONEY														REFRESH CHAIN	
DAYS TO EXPIRY	FUTURES	IV%	35000	36000	37000	38000	39000	40000	41000	42000	43000	44000	45000		
44 DTE	\$68,861.74	52%	4.91	1.41	1.85	2.49	1.95	1.28	6.85	8.70	10.79	13.09	15.56		
79 DTE	\$68,158.74	52%	4.91	6.88	7.37	8.79	10.31	11.92	13.58	15.27	16.96	18.63	20.24		

Remember the way that the expiry values are determined? For each \$2,000 SmartBabyButterfly with a potential maximum expiry value of \$1,000, if Bitcoin is \$100 away from the \$B CENTER, it is going to settle at \$900. So, \$200 away from \$B CENTER settles at \$800. \$300 away makes it \$700. \$400 away makes it \$600 and so on. \$1,000 or more away makes it worthless.

The image below shows SmartButterflyX Live (By Butterfly view) and how the \$300.71 (plus the 0.5% fee) breaks down into the 25 (5²) Babies (1,2,3,4,5,4,3,2,1) in the Qty (2nd) column. To harvest Babies, one simply clicks any of those rows:

INITIAL COST \$432.65		HARVESTED \$0.00		RUNNING COST \$432.65		VAR \$430.50		TOTAL P/L -\$2.15				
PORTFOLIO TABLE			PYRAMID VIEW				CHAIN		ORDERS			
TABLE VIEW: CONDOR BY BUTTERFLY												
\$SMARTBUTTERFLY / DTE	QTY	RANGE	AVG PRICE	LAST HVST	CURR PRICE	REALIZED P/L	UNREALIZED P/L	TOTAL P/L	INITIAL COST	HARVESTED	RUNNING COST	VAR
79 D DTE												
▼ 40,000\$B	1	\$10K	\$302.21	-	\$300.71	\$0.00	-\$1.50	-\$1.50	\$302.21	\$0.00	\$302.21	\$300.71
36,000\$B	1	\$2K	\$6.11	-	\$6.08	\$0.00	-\$0.03	-\$0.03	\$6.11	\$0.00	\$6.11	\$6.08
37,000\$B	2	\$2K	\$7.41	-	\$7.37	\$0.00	-\$0.07	-\$0.07	\$14.82	\$0.00	\$14.82	\$14.74
38,000\$B	3	\$2K	\$8.83	-	\$8.79	\$0.00	-\$0.13	-\$0.13	\$26.50	\$0.00	\$26.50	\$26.37
39,000\$B	4	\$2K	\$10.36	-	\$10.31	\$0.00	-\$0.21	-\$0.21	\$41.45	\$0.00	\$41.45	\$41.25
40,000\$B	5	\$2K	\$11.98	-	\$11.92	\$0.00	-\$0.30	-\$0.30	\$59.88	\$0.00	\$59.88	\$59.59
41,000\$B	4	\$2K	\$13.65	-	\$13.58	\$0.00	-\$0.27	-\$0.27	\$54.59	\$0.00	\$54.59	\$54.32
42,000\$B	3	\$2K	\$15.35	-	\$15.27	\$0.00	-\$0.23	-\$0.23	\$46.04	\$0.00	\$46.04	\$45.81
43,000\$B	2	\$2K	\$17.05	-	\$16.96	\$0.00	-\$0.17	-\$0.17	\$34.10	\$0.00	\$34.10	\$33.93
44,000\$B	1	\$2K	\$18.72	-	\$18.63	\$0.00	-\$0.09	-\$0.09	\$18.72	\$0.00	\$18.72	\$18.63
▶ 35,000\$B	1	\$10K	\$130.44	-	\$129.79	\$0.00	-\$0.65	-\$0.65	\$130.44	\$0.00	\$130.44	\$129.79
TOTALS						\$0.00	-\$2.15	-\$2.15	\$432.65	\$0.00	\$432.65	\$430.50

The expiry calculations work the same for each Baby. There are five 40,000\$Bs, each with the potential expiry value between zero and 1000, stacked upon one another for a total of \$5,000, in the central column. There are four each of the 39,000\$Bs and 41,000\$Bs, each also having potential expiry values between zero and 1000. They are stacked upon one another, in columns on both sides of the central column for a total of \$4,000 each. There are three each of the 38,000\$Bs and 42,000\$Bs, each also having potential expiry values between zero and 1000. They are stacked upon one another for a total of \$3,000 each. There are two each of the 37,000\$Bs and 43,000\$Bs, each also having potential expiry values between zero and 1000. They are stacked upon one another for a total of \$2,000 each. And lastly, there is one 36,000\$B and one 44,000\$B each with a maximum potential expiry value of \$1000.

The equation for determining the amount of SmartBabyButterflies embedded into a SmartButterfly is to take the parent size and divide it by the baby size. Then square it. In the last case the parent SmartButterfly size was \$10,000, and the baby size was \$2,000 so 10,000/2,000 is 5. Square 5 to get 25. A user will be able to toggle between many

SmartButterfly configurations according to baby size and each will have the current price inside the position triangle. Keep in mind that it is theoretically possible to harvest a greater amount than the whole \$10,000 wide butterfly. Here is a quick example of how. Say that you sold off Babies along the way as each of their values increased over time while Bitcoin was trading in close proximity to each of the \$B CENTERS. Also, say that you kept all of the **40,000\$Bs** until expiry with Bitcoin landing at exactly **40,000**. Those 5 \$BabyBs would be each worth \$1,000 for a total of \$5,000. Now add all the proceeds from the dividends harvested. That sums to greater than the \$5,000 maximum. Is there anything in options that is cooler than that?

5. How Can Profits of a Maximum \$5000 Value SmartCondor be Much Greater Than \$5000?

What follows is a series of screenshots from SmartButterflyX Live, in its White Paper (Demo) mode, that use similar values to that of actual Bitcoin prices following the high of \$69,000 in May of 2021. We begin with that same purchase displayed below, when the Bitcoin spot price was \$59,530, buying the **40,000\$B** for 300.71 with 79 DTE (futures price was \$60,150) but also buy the **35,000\$B** for 129.79. The 0.5% edge fee is included in the Initial Cost of \$432.65 (\$302.21 + \$130.44). The buy tickets show how each price breaks down into its Babies:

BUY 40,000\$B - \$10K RANGE			
Target range \$35,000-\$45,000 - 79 DTE - Futures \$60,150.74 - IV 52% - 25 Babies (\$2K range each)			
BABY	QTY	PRICE	VALUE
35K\$B	+1	\$6.0755	\$6.0755
37K\$B	+2	\$7.3715	\$14.7430
38K\$B	+3	\$8.7096	\$26.3687
39K\$B	+4	\$10.3120	\$41.2481
40K\$B	+5	\$11.9170	\$59.5852
41K\$B	+4	\$13.5793	\$54.3171
42K\$B	+3	\$15.2712	\$45.8135
43K\$B	+2	\$16.9630	\$33.9275
44K\$B	+1	\$18.6200	\$18.6200
PARENT TOTAL			\$300.7066
FULL PRICE (40.5%)			\$302.2102
✓ CONFIRM BUY			
Cancel			

BUY 35,000\$B - \$10K RANGE			
Target range \$30,000-\$40,000 - 79 DTE - Futures \$60,150.74 - IV 52% - 25 Babies (\$2K range each)			
BABY	QTY	PRICE	VALUE
31K\$B	+1	\$1.6899	\$1.6899
32K\$B	+2	\$2.2880	\$4.5775
33K\$B	+3	\$3.0215	\$9.0645
34K\$B	+4	\$3.8957	\$15.5829
35K\$B	+5	\$4.9145	\$24.5723
36K\$B	+4	\$6.0755	\$24.3022
37K\$B	+3	\$7.3715	\$22.1145
38K\$B	+2	\$8.7096	\$17.5791
39K\$B	+1	\$10.3120	\$10.3120
PARENT TOTAL			\$129.7949
FULL PRICE (40.5%)			\$130.4439
✓ CONFIRM BUY			
Cancel			

By Butterfly view (each parent butterfly separately):

INITIAL COST		HARVESTED		RUNNING COST		VAR		TOTAL P/L							
\$432.65		\$0.00		\$432.65		\$430.50		-\$2.15							
PORTFOLIO TABLE				PYRAMID VIEW				CHAIN				ORDERS			
TABLE VIEW:				CONDOR				BY BUTTERFLY							
\$SMARTBUTTERFLY / DTE	QTY	RANGE	AVG PRICE	LAST HVST	CURR PRICE	REALIZED P/L	UNREALIZED P/L	TOTAL P/L	INITIAL COST	HARVESTED	RUNNING COST	VAR			
79 D DTE															
▼ 40,000\$B	1	\$10K	\$302.21	-	\$300.71	\$0.00	-\$1.50	-\$1.50	\$302.21	\$0.00	\$302.21	\$300.71			
36,000\$B	1	\$2K	\$6.11	-	\$6.00	\$0.00	-\$0.03	-\$0.03	\$6.11	\$0.00	\$6.11	\$6.00			
37,000\$B	2	\$2K	\$7.41	-	\$7.37	\$0.00	-\$0.07	-\$0.07	\$14.82	\$0.00	\$14.82	\$14.74			
38,000\$B	3	\$2K	\$8.83	-	\$8.79	\$0.00	-\$0.13	-\$0.13	\$26.50	\$0.00	\$26.50	\$26.37			
39,000\$B	4	\$2K	\$10.36	-	\$10.31	\$0.00	-\$0.21	-\$0.21	\$41.45	\$0.00	\$41.45	\$41.25			
40,000\$B	5	\$2K	\$11.90	-	\$11.92	\$0.00	-\$0.30	-\$0.30	\$59.80	\$0.00	\$59.80	\$59.59			
41,000\$B	4	\$2K	\$13.65	-	\$13.50	\$0.00	-\$0.27	-\$0.27	\$54.59	\$0.00	\$54.59	\$54.32			
42,000\$B	3	\$2K	\$15.35	-	\$15.27	\$0.00	-\$0.23	-\$0.23	\$46.04	\$0.00	\$46.04	\$45.81			
43,000\$B	2	\$2K	\$17.05	-	\$16.96	\$0.00	-\$0.17	-\$0.17	\$34.10	\$0.00	\$34.10	\$33.93			
44,000\$B	1	\$2K	\$18.72	-	\$18.63	\$0.00	-\$0.09	-\$0.09	\$18.72	\$0.00	\$18.72	\$18.63			
▼ 35,000\$B	1	\$10K	\$130.44	-	\$129.79	\$0.00	-\$0.65	-\$0.65	\$130.44	\$0.00	\$130.44	\$129.79			
31,000\$B	1	\$2K	\$1.70	-	\$1.69	\$0.00	-\$0.01	-\$0.01	\$1.70	\$0.00	\$1.70	\$1.69			
32,000\$B	2	\$2K	\$2.30	-	\$2.29	\$0.00	-\$0.02	-\$0.02	\$4.60	\$0.00	\$4.60	\$4.50			
33,000\$B	3	\$2K	\$3.04	-	\$3.02	\$0.00	-\$0.05	-\$0.05	\$9.11	\$0.00	\$9.11	\$9.06			
34,000\$B	4	\$2K	\$3.92	-	\$3.90	\$0.00	-\$0.08	-\$0.08	\$15.66	\$0.00	\$15.66	\$15.50			
35,000\$B	5	\$2K	\$4.94	-	\$4.91	\$0.00	-\$0.12	-\$0.12	\$24.70	\$0.00	\$24.70	\$24.57			
36,000\$B	4	\$2K	\$6.11	-	\$6.00	\$0.00	-\$0.12	-\$0.12	\$24.42	\$0.00	\$24.42	\$24.30			
37,000\$B	3	\$2K	\$7.41	-	\$7.37	\$0.00	-\$0.11	-\$0.11	\$22.23	\$0.00	\$22.23	\$22.11			
38,000\$B	2	\$2K	\$8.83	-	\$8.79	\$0.00	-\$0.09	-\$0.09	\$17.67	\$0.00	\$17.67	\$17.50			
39,000\$B	1	\$2K	\$10.36	-	\$10.31	\$0.00	-\$0.05	-\$0.05	\$10.36	\$0.00	\$10.36	\$10.31			
TOTALS						\$0.00	-\$2.15	-\$2.15	\$432.65	\$0.00	\$432.65	\$430.50			

Because of the overlapping Centers involved, it is easier in the Condor view (Babies combined) to see how the two are combined into a Condor (2 adjacent butterflies) where the Target Center becomes stretched between 35,000 and 40,000 where there are 5 Babies at each of the **35,000\$B** to **40,000\$B** CENTERS (*Note an occasional rounding error of \$0.01 here and there*):

INITIAL COST \$432.65			HARVESTED \$0.00			RUNNING COST \$432.65			VAR \$430.50			TOTAL P/L -\$2.15					
PORTFOLIO TABLE					PYRAMID VIEW					CHAIN					ORDERS		
TABLE VIEW: CONDOR BY BUTTERFLY																	
SMARTBUTTERFLY / DTE					QTY	RANGE	AVG PRICE	LAST HVST	CURR PRICE	REALIZED P/L	UNREALIZED P/L	TOTAL P/L	INITIAL COST	HARVESTED	RUNNING COST	VAR	
CONDOR (BABIES COMBINED) - 79 DTE BTC \$59.530																	
44,000\$D	1	\$2K	\$18.72	-	\$18.63	\$0.00	-\$0.09	-\$0.09	\$18.72	\$0.00	\$18.72	\$18.63					
43,000\$D	2	\$2K	\$17.05	-	\$16.96	\$0.00	-\$0.17	-\$0.17	\$34.10	\$0.00	\$34.10	\$33.93					
42,000\$D	3	\$2K	\$15.35	-	\$15.27	\$0.00	-\$0.23	-\$0.23	\$46.04	\$0.00	\$46.04	\$45.81					
41,000\$D	4	\$2K	\$13.65	-	\$13.58	\$0.00	-\$0.27	-\$0.27	\$54.59	\$0.00	\$54.59	\$54.32					
40,000\$D	5	\$2K	\$11.98	-	\$11.92	\$0.00	-\$0.30	-\$0.30	\$59.88	\$0.00	\$59.88	\$59.59					
39,000\$D	5	\$2K	\$10.36	-	\$10.31	\$0.00	-\$0.26	-\$0.26	\$51.82	\$0.00	\$51.82	\$51.56					
38,000\$D	5	\$2K	\$8.83	-	\$8.79	\$0.00	-\$0.22	-\$0.22	\$44.17	\$0.00	\$44.17	\$43.95					
37,000\$D	5	\$2K	\$7.41	-	\$7.37	\$0.00	-\$0.18	-\$0.18	\$37.04	\$0.00	\$37.04	\$36.86					
36,000\$D	5	\$2K	\$6.11	-	\$6.08	\$0.00	-\$0.15	-\$0.15	\$30.53	\$0.00	\$30.53	\$30.38					
35,000\$D	5	\$2K	\$4.94	-	\$4.91	\$0.00	-\$0.12	-\$0.12	\$24.70	\$0.00	\$24.70	\$24.57					
34,000\$D	4	\$2K	\$3.92	-	\$3.90	\$0.00	-\$0.08	-\$0.08	\$15.66	\$0.00	\$15.66	\$15.58					
33,000\$D	3	\$2K	\$3.04	-	\$3.02	\$0.00	-\$0.05	-\$0.05	\$9.11	\$0.00	\$9.11	\$9.06					
32,000\$D	2	\$2K	\$2.30	-	\$2.29	\$0.00	-\$0.02	-\$0.02	\$4.60	\$0.00	\$4.60	\$4.58					
31,000\$D	1	\$2K	\$1.70	-	\$1.69	\$0.00	-\$0.01	-\$0.01	\$1.70	\$0.00	\$1.70	\$1.69					
CONDOR TOTALS						\$0.00	-\$2.15	-\$2.15	\$432.65	\$0.00	\$432.65	\$430.50					

In this strategy, we then wait until 14DTE when butterflies begin to blossom and Bitcoin spot price has declined to \$43,000. We can liquidate the whole position for a profit of \$1,897.30 (see the Total P/L column in the table below: \$1,501.36 on the 40,000\$B row plus \$395.94 on the 35,000\$B row), less the 0.5% edge fee of \$11.65 on the \$2,329.96 sale, or \$1,885.65 net, but instead we will harvest both **43,000\$Bs**. Here is what it looks like before the harvest with profits/losses (PL) are unrealized:

INITIAL COST \$432.65			HARVESTED \$0.00			RUNNING COST \$432.65			VAR \$2,329.96			TOTAL P/L \$1,897.30			
PORTFOLIO TABLE				PYRAMID VIEW						CHAIN			ORDERS		
TABLE VIEW: CONDORBY BUTTERFLY															
SMARTBUTTERFLY / DTE		QTY	RANGE	AVG PRICE	LAST HVST	CURR PRICE	REALIZED P/L	UNREALIZED P/L	TOTAL P/L	INITIAL COST	HARVESTED	RUNNING COST	VAR		
14 D DTE															
▼ 40,000\$B		1	\$10K	\$302.21	–	\$1,003.57	\$0.00	\$1,501.36	\$1,501.36	\$302.21	\$0.00	\$302.21	\$1,003.57		
36,000\$B		1	\$2K	\$6.11	–	\$25.97	\$0.00	\$19.86	\$19.86	\$6.11	\$0.00	\$6.11	\$25.97		
37,000\$B		2	\$2K	\$7.41	–	\$30.29	\$0.00	\$61.76	\$61.76	\$14.82	\$0.00	\$14.82	\$76.50		
38,000\$B		3	\$2K	\$8.83	–	\$52.18	\$0.00	\$130.05	\$130.05	\$26.50	\$0.00	\$26.50	\$156.55		
39,000\$B		4	\$2K	\$10.36	–	\$66.12	\$0.00	\$223.03	\$223.03	\$41.45	\$0.00	\$41.45	\$264.48		
40,000\$B		5	\$2K	\$11.98	–	\$70.29	\$0.00	\$331.56	\$331.56	\$59.88	\$0.00	\$59.88	\$391.45		
41,000\$B		4	\$2K	\$13.65	–	\$87.04	\$0.00	\$293.57	\$293.57	\$54.59	\$0.00	\$54.59	\$348.16		
42,000\$B		3	\$2K	\$15.35	–	\$91.25	\$0.00	\$227.72	\$227.72	\$46.04	\$0.00	\$46.04	\$273.76		
43,000\$B		2	\$2K	\$17.05	–	\$90.59	\$0.00	\$147.07	\$147.07	\$34.10	\$0.00	\$34.10	\$181.17		
44,000\$B		1	\$2K	\$18.72	–	\$85.45	\$0.00	\$66.73	\$66.73	\$18.72	\$0.00	\$18.72	\$85.45		
▼ 35,000\$B		1	\$10K	\$130.44	–	\$526.39	\$0.00	\$395.94	\$395.94	\$130.44	\$0.00	\$130.44	\$526.39		
31,000\$B		1	\$2K	\$1.70	–	\$0.90	\$0.00	-\$0.80	-\$0.80	\$1.70	\$0.00	\$1.70	\$0.90		
32,000\$B		2	\$2K	\$2.30	–	\$2.19	\$0.00	-\$0.23	-\$0.23	\$4.60	\$0.00	\$4.60	\$4.37		
33,000\$B		3	\$2K	\$3.04	–	\$4.73	\$0.00	\$5.09	\$5.09	\$9.11	\$0.00	\$9.11	\$14.20		
34,000\$B		4	\$2K	\$3.92	–	\$9.20	\$0.00	\$21.12	\$21.12	\$15.66	\$0.00	\$15.66	\$36.79		
35,000\$B		5	\$2K	\$4.94	–	\$16.18	\$0.00	\$56.20	\$56.20	\$24.70	\$0.00	\$24.70	\$80.90		
36,000\$B		4	\$2K	\$6.11	–	\$25.97	\$0.00	\$79.45	\$79.45	\$24.42	\$0.00	\$24.42	\$103.00		
37,000\$B		3	\$2K	\$7.41	–	\$30.29	\$0.00	\$92.64	\$92.64	\$22.23	\$0.00	\$22.23	\$114.07		
38,000\$B		2	\$2K	\$8.83	–	\$52.18	\$0.00	\$86.70	\$86.70	\$17.67	\$0.00	\$17.67	\$104.37		
39,000\$B		1	\$2K	\$10.36	–	\$66.12	\$0.00	\$55.76	\$55.76	\$10.36	\$0.00	\$10.36	\$66.12		
TOTALS							\$0.00	\$1,897.30	\$1,897.30	\$432.65	\$0.00	\$432.65	\$2,329.96		

Rather than separate accounting figures for each parent butterfly and each baby butterfly, here is the Condor view with the Babies combined:

INITIAL COST \$432.65			HARVESTED \$0.00			RUNNING COST \$432.65			VAR \$2,329.96			TOTAL P&L \$1,897.30				
PORTFOLIO TABLE				PYRAMID VIEW					CHAIN				ORDERS			
TABLE VIEW: CONDOR BY BUTTERFLY																
SMARTBUTTERFLY / DTE		QTY	RANGE	AVG PRICE	LAST HVST	CURR PRICE	REALIZED P/L	UNREALIZED P/L	TOTAL P/L	INITIAL COST	HARVESTED	RUNNING COST	VAR			
CONDOR (BABIES COMBINED) - 14 D DTE BTC \$43,000																
44,000\$B	1	\$2K	\$10.72	-	\$85.45	\$0.00	\$66.73	\$66.73	\$18.72	\$0.00	\$18.72	\$85.45				
43,000\$B	2	\$2K	\$17.85	-	\$90.59	\$0.00	\$147.07	\$147.07	\$34.10	\$0.00	\$34.10	\$181.17				
42,000\$B	3	\$2K	\$15.35	-	\$91.25	\$0.00	\$227.72	\$227.72	\$46.04	\$0.00	\$46.04	\$273.76				
41,000\$B	4	\$2K	\$13.65	-	\$87.84	\$0.00	\$293.57	\$293.57	\$54.59	\$0.00	\$54.59	\$348.16				
40,000\$B	5	\$2K	\$11.98	-	\$78.29	\$0.00	\$331.56	\$331.56	\$59.88	\$0.00	\$59.88	\$391.45				
39,000\$B	5	\$2K	\$10.36	-	\$66.12	\$0.00	\$278.78	\$278.78	\$51.82	\$0.00	\$51.82	\$338.68				
38,000\$B	5	\$2K	\$8.83	-	\$52.18	\$0.00	\$216.76	\$216.76	\$44.17	\$0.00	\$44.17	\$268.92				
37,000\$B	5	\$2K	\$7.41	-	\$38.29	\$0.00	\$154.48	\$154.48	\$37.04	\$0.00	\$37.04	\$191.44				
36,000\$B	5	\$2K	\$6.11	-	\$25.97	\$0.00	\$99.31	\$99.31	\$30.53	\$0.00	\$30.53	\$129.84				
35,000\$B	5	\$2K	\$4.94	-	\$16.18	\$0.00	\$56.28	\$56.28	\$24.78	\$0.00	\$24.78	\$88.98				
34,000\$B	4	\$2K	\$3.92	-	\$9.28	\$0.00	\$21.12	\$21.12	\$15.66	\$0.00	\$15.66	\$36.79				
33,000\$B	3	\$2K	\$3.84	-	\$4.73	\$0.00	\$5.09	\$5.09	\$9.11	\$0.00	\$9.11	\$14.28				
32,000\$B	2	\$2K	\$2.38	-	\$2.19	\$0.00	-\$0.23	-\$0.23	\$4.68	\$0.00	\$4.68	\$4.37				
31,000\$B	1	\$2K	\$1.78	-	\$8.98	\$0.00	-\$8.88	-\$8.88	\$1.78	\$0.00	\$1.78	\$8.98				
CONDOR TOTALS						\$0.00	\$1,897.30	\$1,897.30	\$432.65	\$0.00	\$432.65	\$2,329.96				

Harvesting Baby Butterflies:

There are several different order types for harvesting babies:

HARVEST 43,000\$B BABIES

\$2K range - 14 D DTE - Futures \$43,000 - Baby now \$90.59

☒ Sell at Market (now)

☐ Sell at Center - when futures touch \$43,000

☐ Sell when futures price reached 43000

☐ Sell when Baby price reached \$ 99.64

QUANTITY 2

You have 2 Babies at 43,000\$B with 14.0 days to expiration. Harvest (sell) them?

EST. PROCEEDS AT MARKET (after 0.5% edge fee) \$180.27

PLACE HARVEST ORDER

Cancel

In the Portfolio Table I clicked on the 43,000\$B row and the system knows I have 2 babies there, so it defaults to 2. I can edit that to sell only 1 if I choose. I can sell at the market or when the futures touch the Center of 43000 or I can enter a contingent order by entering a futures price, or by entering a limit order based on a desired butterfly price. We have not added the functionality yet but there will be a choice, in one single click, to sell each set of babies when they each reach their respective Centers. But now, with the current version as of this writing, I must click each Center and enter individually so that when the market reaches the levels equivalent to the Center prices where I have inventory, they will execute.

Total profit so far is \$1,896.40. After harvesting 2 43,000\$Bs for \$90.59 each, we reduce our RunningCost to \$252.39 (Initial Cost: \$432.65, Harvested \$180.27). This leaves the market Value at Risk (VAR) at \$2,148.79 (lower right-hand corner):

INITIAL COST \$432.65			HARVESTED \$180.27			RUNNING COST \$252.39			VAR \$2,148.79			TOTAL P&L \$1,896.40				
PORTFOLIO TABLE				PYRAMID VIEW						CHAIN					ORDERS	
TABLE VIEW				CONDOR		BY BUTTERFLY										
SMARTBUTTERFLY / DTE				QTY	RANGE	AVG PRICE	LAST HVST	CURR PRICE	REALIZED P/L	UNREALIZED P/L	TOTAL P/L	INITIAL COST	HARVESTED	RUNNING COST	VAR	
🐛 CONDOR (BABIES COMBINED) – 14.0 DTE BTC \$43,000																
44,000\$B		1	\$2K	\$10.72	–	\$85.45		\$0.00	\$66.73	\$66.73	\$18.72	\$0.00	\$18.72	\$85.45		
43,000\$B ✓		2	\$2K	\$17.85	📉 \$90.59	\$90.59		\$146.17	\$0.00	\$146.17	\$34.10	\$180.27	📈 \$146.17 CR	\$0.00		
42,000\$B		3	\$2K	\$15.35	–	\$91.25		\$0.00	\$227.72	\$227.72	\$46.04	\$0.00	\$46.04	\$273.76		
41,000\$B		4	\$2K	\$13.65	–	\$87.84		\$0.00	\$293.57	\$293.57	\$54.59	\$0.00	\$54.59	\$348.16		
40,000\$B		5	\$2K	\$11.98	–	\$78.29		\$0.00	\$331.56	\$331.56	\$59.88	\$0.00	\$59.88	\$391.45		
39,000\$B		5	\$2K	\$10.36	–	\$66.12		\$0.00	\$278.78	\$278.78	\$51.82	\$0.00	\$51.82	\$338.68		
38,000\$B		5	\$2K	\$8.83	–	\$52.18		\$0.00	\$216.76	\$216.76	\$44.17	\$0.00	\$44.17	\$268.92		
37,000\$B		5	\$2K	\$7.41	–	\$38.29		\$0.00	\$154.48	\$154.48	\$37.84	\$0.00	\$37.84	\$191.44		
36,000\$B		5	\$2K	\$6.11	–	\$25.97		\$0.00	\$99.31	\$99.31	\$30.53	\$0.00	\$30.53	\$129.84		
35,000\$B		5	\$2K	\$4.94	–	\$16.18		\$0.00	\$56.28	\$56.28	\$24.78	\$0.00	\$24.78	\$88.98		
34,000\$B		4	\$2K	\$3.92	–	\$9.28		\$0.00	\$21.12	\$21.12	\$15.66	\$0.00	\$15.66	\$36.79		
33,000\$B		3	\$2K	\$3.84	–	\$4.73		\$0.00	\$5.09	\$5.09	\$9.11	\$0.00	\$9.11	\$14.28		
32,000\$B		2	\$2K	\$2.38	–	\$2.19		\$0.00	–\$0.23	–\$0.23	\$4.68	\$0.00	\$4.68	\$4.37		
31,000\$B		1	\$2K	\$1.78	–	\$8.98		\$0.00	–\$8.88	–\$8.88	\$1.78	\$0.00	\$1.78	\$8.98		
CONDOR TOTALS								\$146.17	\$1,758.23	\$1,896.40	\$432.65	\$180.27	\$252.39	\$2,148.79		

Later that day Bitcoin spot price declined another \$1,000 to \$42,000. Total profit so far is \$2,311.71. After harvesting all 3 **42,000\$Bs** for \$92.72 each, we reduce our RunningCost to a credit of \$24.39 (Initial Cost: \$432.65, Harvested: \$457.05) which is less than free. In other words, ‘we own the remaining baby butterflies with the market’s money’. That is to say that even if the remaining portfolio goes worthless, we still will have profited \$24.39. So, even though we got back all our money and more, this leaves the VAR, ‘money on the table’ at \$2,287.32:

INITIAL COST \$432.65		HARVESTED \$457.05		RUNNING COST \$24.39 CR		VAR \$2,287.32		TOTAL P/L \$2,311.71						
PORTFOLIO TABLE			PYRAMID VIEW				CHAIN		ORDERS					
TABLE VIEW: CONDOR BY BUTTERFLY														
SMARTBUTTERFLY / DTE			QTY	RANGE	AVG PRICE	LAST HVST	CURR PRICE	REALIZED P/L	UNREALIZED P/L	TOTAL P/L	INITIAL COST	HARVESTED	RUNNING COST	VAR
CONDOR (BABIES COMBINED) - 14 D DTE BTC \$42,000														
44,000SD	1	\$2K	\$10.72	-	\$70.20	\$0.00	\$59.48	\$59.48	\$10.72	\$0.00	\$10.72	\$70.20		
43,000SD ✓	8/2	\$2K	\$17.05	\$90.59	\$87.30	\$146.17	\$0.00	\$146.17	\$34.10	\$100.27	\$146.17 CR	\$0.00		
42,000SD ✓	8/3	\$2K	\$15.35	\$92.72	\$92.72	\$230.74	\$0.00	\$230.74	\$46.04	\$276.78	\$230.74 CR	\$0.00		
41,000SD	4	\$2K	\$13.65	-	\$93.36	\$0.00	\$310.86	\$310.86	\$54.59	\$0.00	\$54.59	\$373.45		
40,000SD	5	\$2K	\$11.90	-	\$88.77	\$0.00	\$383.94	\$383.94	\$59.80	\$0.00	\$59.80	\$443.83		
39,000SD	5	\$2K	\$10.36	-	\$79.35	\$0.00	\$344.92	\$344.92	\$51.82	\$0.00	\$51.82	\$396.74		
38,000SD	5	\$2K	\$8.83	-	\$66.30	\$0.00	\$287.72	\$287.72	\$44.17	\$0.00	\$44.17	\$331.89		
37,000SD	5	\$2K	\$7.41	-	\$51.70	\$0.00	\$221.45	\$221.45	\$37.04	\$0.00	\$37.04	\$258.49		
36,000SD	5	\$2K	\$6.11	-	\$37.20	\$0.00	\$155.86	\$155.86	\$30.53	\$0.00	\$30.53	\$186.39		
35,000SD	5	\$2K	\$4.94	-	\$24.73	\$0.00	\$90.96	\$90.96	\$24.70	\$0.00	\$24.70	\$123.66		
34,000SD	4	\$2K	\$3.92	-	\$15.00	\$0.00	\$44.32	\$44.32	\$15.66	\$0.00	\$15.66	\$59.90		
33,000SD	3	\$2K	\$3.04	-	\$8.25	\$0.00	\$15.63	\$15.63	\$9.11	\$0.00	\$9.11	\$24.74		
32,000SD	2	\$2K	\$2.30	-	\$4.00	\$0.00	\$3.56	\$3.56	\$4.60	\$0.00	\$4.60	\$8.16		
31,000SD	1	\$2K	\$1.70	-	\$1.00	\$0.00	\$0.10	\$0.10	\$1.70	\$0.00	\$1.70	\$1.00		
CONDOR TOTALS						\$936.91	\$1,934.90	\$0,311.71	\$432.65	\$457.05	\$24.39 CR	\$2,287.32		

Later that day Bitcoin spot price declined another \$1,000 to \$41,000. Total profit so far is \$2,724.87. After harvesting all 4 **41,000\$Bs** for \$94.96 each, we increase our RunningCost credit to \$402.35 (Initial Cost: \$432.65, Harvested: \$835.01), which is even more less than free, leaving VAR at \$2,322.52:

INITIAL COST \$432.65		HARVESTED \$835.01		RUNNING COST \$402.35 CR		VAR \$2,322.52		TOTAL P/L \$2,724.87					
PORTFOLIO TABLE				PYRAMID VIEW				CHAIN		ORDERS			
TABLE VIEW: CONDOR BY BUTTERFLY													
SMARTBUTTERFLY / DTE		QTY	RANGE	AVG PRICE	LAST HVST	CURR PRICE	REALIZED P/L	UNREALIZED P/L	TOTAL P/L	INITIAL COST	HARVESTED	RUNNING COST	VAR
CONDOR (BABIES COMBINED) - 14 D DTE BTC \$41,000													
44,000SD	1	\$2K	\$10.72	-	\$67.59	\$0.00	\$48.87	\$48.87	\$10.72	\$0.00	\$10.72	\$67.59	
43,000SD ✓	8/2	\$2K	\$17.05	\$90.59	\$79.57	\$146.17	\$0.00	\$146.17	\$34.10	\$180.27	\$146.17 CR	\$0.00	
42,000SD ✓	8/3	\$2K	\$15.35	\$92.72	\$89.22	\$230.74	\$0.00	\$230.74	\$46.04	\$276.78	\$230.74 CR	\$0.00	
41,000SD ✓	8/4	\$2K	\$13.65	\$94.96	\$94.96	\$323.37	\$0.00	\$323.37	\$54.59	\$377.96	\$323.37 CR	\$0.00	
40,000SD	5	\$2K	\$11.90	-	\$95.57	\$0.00	\$417.95	\$417.95	\$59.80	\$0.00	\$59.80	\$477.83	
39,000SD	5	\$2K	\$10.36	-	\$90.55	\$0.00	\$400.91	\$400.91	\$51.82	\$0.00	\$51.82	\$452.73	
38,000SD	5	\$2K	\$8.83	-	\$80.40	\$0.00	\$357.83	\$357.83	\$44.17	\$0.00	\$44.17	\$402.00	
37,000SD	5	\$2K	\$7.41	-	\$66.57	\$0.00	\$295.79	\$295.79	\$37.04	\$0.00	\$37.04	\$332.84	
36,000SD	5	\$2K	\$6.11	-	\$51.11	\$0.00	\$225.00	\$225.00	\$30.53	\$0.00	\$30.53	\$255.53	
35,000SD	5	\$2K	\$4.94	-	\$36.16	\$0.00	\$156.12	\$156.12	\$24.70	\$0.00	\$24.70	\$180.82	
34,000SD	4	\$2K	\$3.92	-	\$23.43	\$0.00	\$78.05	\$78.05	\$15.66	\$0.00	\$15.66	\$93.71	
33,000SD	3	\$2K	\$3.04	-	\$13.79	\$0.00	\$32.26	\$32.26	\$9.11	\$0.00	\$9.11	\$41.37	
32,000SD	2	\$2K	\$2.30	-	\$7.32	\$0.00	\$10.03	\$10.03	\$4.60	\$0.00	\$4.60	\$14.63	
31,000SD	1	\$2K	\$1.70	-	\$3.47	\$0.00	\$1.77	\$1.77	\$1.70	\$0.00	\$1.70	\$3.47	
CONDOR TOTALS						\$100.28	\$2,024.59	\$2,724.87	\$432.65	\$835.01	\$402.35 CR	\$2,322.52	

The next day (13DTE) Bitcoin spot price declined another \$1,000 to \$40,000. Total profit so far is \$3,150.24. After harvesting all 5 **40,000\$Bs** for \$100.96 each, we increase our RunningCost credit to \$904.64 (Initial Cost: \$432.65, Harvested: \$1,337.29). The market cannot take that away with the remainder of this position. VAR is \$2,245.60:

INITIAL COST \$432.65		HARVESTED \$1,337.29		RUNNING COST \$904.64 CR		VAR \$2,245.60		TOTAL P/L \$3,150.24					
PORTFOLIO TABLE				PYRAMID VIEW				CHAIN		ORDERS			
TABLE VIEW: CONDOR		BY BUTTERFLY											
SMARTBUTTERFLY / DTE		QTY	RANGE	AVG PRICE	LAST HVST	CURR PRICE	REALIZED P/L	UNREALIZED P/L	TOTAL P/L	INITIAL COST	HARVESTED	RUNNING COST	VAR
CONDOR (BABIES COMBINED) - 13.0 DTE BTC \$40,000													
44,000SD	1	\$2K	\$10.72	-	\$55.17	\$0.00	\$36.45	\$36.45	\$10.72	\$0.00	\$10.72	\$55.17	
43,000SD ✓	8/2	\$2K	\$17.05	\$90.59	\$69.54	\$146.17	\$0.00	\$146.17	\$34.10	\$180.27	\$146.17 CR	\$0.00	
42,000SD ✓	8/3	\$2K	\$15.35	\$92.72	\$83.30	\$230.74	\$0.00	\$230.74	\$46.04	\$276.70	\$230.74 CR	\$0.00	
41,000SD ✓	8/4	\$2K	\$13.65	\$94.96	\$94.45	\$323.37	\$0.00	\$323.37	\$54.59	\$377.96	\$323.37 CR	\$0.00	
40,000SD ✓	8/5	\$2K	\$11.90	\$100.96	\$100.96	\$442.40	\$0.00	\$442.40	\$59.80	\$502.29	\$442.40 CR	\$0.00	
39,000SD	5	\$2K	\$10.36	-	\$101.30	\$0.00	\$454.67	\$454.67	\$51.82	\$0.00	\$51.82	\$506.40	
38,000SD	5	\$2K	\$8.83	-	\$94.92	\$0.00	\$430.45	\$430.45	\$44.17	\$0.00	\$44.17	\$474.62	
37,000SD	5	\$2K	\$7.41	-	\$82.63	\$0.00	\$376.13	\$376.13	\$37.04	\$0.00	\$37.04	\$413.17	
36,000SD	5	\$2K	\$6.11	-	\$66.44	\$0.00	\$301.65	\$301.65	\$30.53	\$0.00	\$30.53	\$332.18	
35,000SD	5	\$2K	\$4.94	-	\$49.01	\$0.00	\$220.37	\$220.37	\$24.70	\$0.00	\$24.70	\$245.07	
34,000SD	4	\$2K	\$3.92	-	\$32.95	\$0.00	\$116.12	\$116.12	\$15.66	\$0.00	\$15.66	\$131.70	
33,000SD	3	\$2K	\$3.04	-	\$20.02	\$0.00	\$50.95	\$50.95	\$9.11	\$0.00	\$9.11	\$60.86	
32,000SD	2	\$2K	\$2.30	-	\$10.90	\$0.00	\$17.20	\$17.20	\$4.60	\$0.00	\$4.60	\$21.00	
31,000SD	1	\$2K	\$1.70	-	\$5.27	\$0.00	\$3.57	\$3.57	\$1.70	\$0.00	\$1.70	\$5.27	
CONDOR TOTALS						\$1,142.60	\$2,021.56	\$3,150.24	\$432.65	\$1,337.29	\$904.64 CR	\$2,245.60	

Over the next 11 days Bitcoin bounced around and with 2DTE visited \$39,000. Total profit so far is \$4,061.69. After harvesting all 5 **39,000\$Bs** for \$256.33 each, we increase our RunningCost credit to \$2,173.47 (Initial Cost: \$432.65, Harvested: \$2,606.13). The market cannot take that away with the remainder of this position. VAR is \$1,888.22:

INITIAL COST \$432.65			HARVESTED \$2,606.13			RUNNING COST \$2,173.47 CR			VAR \$1,888.22		TOTAL P&L \$4,061.69		
PORTFOLIO TABLE				PYRAMID VIEW				CHAIN				ORDERS	
TABLE VIEW: CONDOR BY BUTTERFLY													
\$SMARTBUTTERFLY / DTE	QTY	RANGE	AVG PRICE	LAST HVST	CURR PRICE	REALIZED P/L	UNREALIZED P/L	TOTAL P/L	INITIAL COST	HARVESTED	RUNNING COST	VAR	
CONDOR (BABIES COMBINED) - 2.0 DTE BTC \$39,000													
44,000\$B	1	\$2K	\$18.72	-	\$2.11	\$0.00	-\$16.61	-\$16.61	\$18.72	\$0.00	\$18.72	\$2.11	
43,000\$B ✓	8/2	\$2K	\$17.85	\$90.59	\$18.90	\$146.17	\$0.00	\$146.17	\$34.18	\$180.27	\$146.17 CR	\$0.00	
42,000\$B ✓	8/3	\$2K	\$15.35	\$92.72	\$48.86	\$238.74	\$0.00	\$238.74	\$46.84	\$276.78	\$238.74 CR	\$0.00	
41,000\$B ✓	8/4	\$2K	\$13.65	\$94.96	\$189.11	\$323.37	\$0.00	\$323.37	\$54.59	\$377.96	\$323.37 CR	\$0.00	
40,000\$B ✓	8/5	\$2K	\$11.98	\$180.96	\$282.86	\$442.48	\$0.00	\$442.48	\$59.88	\$582.29	\$442.48 CR	\$0.00	
39,000\$B ✓	8/5	\$2K	\$18.36	\$256.33	\$256.33	\$1,217.82	\$0.00	\$1,217.82	\$51.82	\$1,268.84	\$1,217.82 CR	\$0.00	
38,000\$B	5	\$2K	\$8.83	-	\$214.45	\$0.00	\$1,828.10	\$1,828.10	\$44.17	\$0.00	\$44.17	\$1,872.27	
37,000\$B	5	\$2K	\$7.41	-	\$115.44	\$0.00	\$548.17	\$548.17	\$37.84	\$0.00	\$37.84	\$577.21	
36,000\$B	5	\$2K	\$6.11	-	\$38.74	\$0.00	\$163.16	\$163.16	\$38.53	\$0.00	\$38.53	\$193.69	
35,000\$B	5	\$2K	\$4.94	-	\$7.82	\$0.00	\$14.41	\$14.41	\$24.78	\$0.00	\$24.78	\$39.11	
34,000\$B	4	\$2K	\$3.92	-	\$8.91	\$0.00	-\$12.81	-\$12.81	\$15.66	\$0.00	\$15.66	\$3.65	
33,000\$B	3	\$2K	\$3.84	-	\$8.86	\$0.00	-\$8.93	-\$8.93	\$9.11	\$0.00	\$9.11	\$0.18	
32,000\$B	2	\$2K	\$2.38	-	\$8.88	\$0.00	-\$4.68	-\$4.68	\$4.68	\$0.00	\$4.68	\$0.00	
31,000\$B	1	\$2K	\$1.78	-	\$8.88	\$0.00	-\$1.78	-\$1.78	\$1.78	\$0.00	\$1.78	\$0.00	
CONDOR TOTALS						\$2,359.70	\$1,701.99	\$4,061.69	\$432.65	\$2,606.13	\$2,173.47 CR	\$1,888.22	

The next day (1DTE) Bitcoin spot price declined another \$1,000 to \$38,000. Total profit so far is \$5,566.10. After harvesting all 5 **38,000\$Bs** for \$358.27 each, we increase our RunningCost credit to \$3,946.93 (Initial Cost: \$432.65, Harvested: \$4,379.59). This is not like your father's condor that could achieve a maximum of \$5000. VAR is \$1,619.17:

INITIAL COST \$432.65			HARVESTED \$4,379.59			RUNNING COST \$3,946.93 CR			VAR \$1,619.17			TOTAL P&L \$5,566.10																	
PORTFOLIO TABLE						PYRAMID VIEW						CHAIN						ORDERS											
TABLE VIEW						CONDOR						BY BUTTERFLY																	
\$SMARTBUTTERFLY / DTE						QTY		RANGE		AVG PRICE		LAST HVST		CURR PRICE		REALIZED P/L		UNREALIZED P/L		TOTAL P/L		INITIAL COST		HARVESTED		RUNNING COST		VAR	
CONDOR (BABIES COMBINED) - 1.0 DTE BTC \$38,000																													
44,000\$B						1		\$2K		\$18.72		-		\$0.00		\$0.00		-\$18.72		-\$18.72		\$18.72		\$0.00		\$18.72		\$0.00	
43,000\$B ✓						8/2		\$2K		\$17.85		\$90.59		\$8.83		\$146.17		\$0.00		\$146.17		\$34.18		\$188.27		\$146.17 CR		\$0.00	
42,000\$B ✓						8/3		\$2K		\$15.35		\$92.72		\$8.78		\$238.74		\$0.00		\$238.74		\$46.84		\$238.78		\$238.74 CR		\$0.00	
41,000\$B ✓						8/4		\$2K		\$13.65		\$94.96		\$18.59		\$323.37		\$0.00		\$323.37		\$54.59		\$377.96		\$323.37 CR		\$0.00	
40,000\$B ✓						8/5		\$2K		\$11.98		\$180.96		\$71.69		\$442.48		\$0.00		\$442.48		\$59.88		\$582.29		\$442.48 CR		\$0.00	
39,000\$B ✓						8/5		\$2K		\$18.36		\$256.33		\$234.71		\$1,217.82		\$0.00		\$1,217.82		\$51.82		\$1,268.84		\$1,217.82 CR		\$0.00	
38,000\$B ✓						8/5		\$2K		\$8.83		\$358.27		\$358.27		\$1,729.29		\$0.00		\$1,729.29		\$44.17		\$1,773.46		\$1,729.29 CR		\$0.00	
37,000\$B						5		\$2K		\$7.41		-		\$244.56		\$0.00		\$1,185.78		\$1,185.78		\$37.84		\$0.00		\$37.84		\$1,222.82	
36,000\$B						5		\$2K		\$6.11		-		\$78.85		\$0.00		\$323.73		\$323.73		\$38.53		\$0.00		\$38.53		\$354.26	
35,000\$B						5		\$2K		\$4.94		-		\$8.14		\$0.00		\$16.82		\$16.82		\$24.78		\$0.00		\$24.78		\$48.71	
34,000\$B						4		\$2K		\$3.92		-		\$8.34		\$0.00		-\$14.38		-\$14.38		\$15.66		\$0.00		\$15.66		\$1.36	
33,000\$B						3		\$2K		\$3.84		-		\$8.88		\$0.00		-\$9.18		-\$9.18		\$9.11		\$0.00		\$9.11		\$8.81	
32,000\$B						2		\$2K		\$2.38		-		\$8.88		\$0.00		-\$4.68		-\$4.68		\$4.68		\$0.00		\$4.68		\$0.00	
31,000\$B						1		\$2K		\$1.78		-		\$8.88		\$0.00		-\$1.78		-\$1.78		\$1.78		\$0.00		\$1.78		\$0.00	
CONDOR TOTALS																\$4,088.99		\$1,471.11		\$5,566.10		\$432.65		\$4,379.59		\$3,946.93 CR		\$1,619.17	

Later that day (1DTE) Bitcoin spot price declined another \$1,000 to \$37,000. Total profit so far is \$7,352.37. After harvesting all 5 **37,000\$Bs** for \$366.56 each, we increase our RunningCost credit to \$5,761.38 (Initial Cost: \$432.65, Harvested: \$6,194.04). VAR is \$1,590.99:

INITIAL COST \$432.65		HARVESTED \$6,194.04		RUNNING COST \$5,761.38 CR		VAR \$1,590.99		TOTAL P&L \$7,352.37				
PORTFOLIO TABLE				PYRAMID VIEW				CHAIN		ORDERS		
TABLE VIEW				CONDOR		BY BUTTERFLY						
\$SMARTBUTTERFLY / DTE	QTY	RANGE	AVG PRICE	LAST HVST	CURR PRICE	REALIZED P/L	UNREALIZED P/L	TOTAL P/L	INITIAL COST	HARVESTED	RUNNING COST	VAR
CONDOR (BABIES COMBINED) - 1.0 DTE BTC \$37,000												
44,000\$B	1	\$2K	\$18.72	-	\$8.88	\$0.00	-\$18.72	-\$18.72	\$18.72	\$0.00	\$18.72	\$0.00
43,000\$B ✓	8/2	\$2K	\$17.85	\$90.59	\$8.88	\$146.17	\$0.00	\$146.17	\$34.18	\$188.27	\$146.17 CR	\$0.00
42,000\$B ✓	8/3	\$2K	\$15.35	\$92.72	\$8.82	\$238.74	\$0.00	\$238.74	\$46.84	\$276.78	\$238.74 CR	\$0.00
41,000\$B ✓	8/4	\$2K	\$13.65	\$94.96	\$8.68	\$323.37	\$0.00	\$323.37	\$54.59	\$377.96	\$323.37 CR	\$0.00
40,000\$B ✓	8/5	\$2K	\$11.98	\$180.96	\$9.22	\$442.48	\$0.00	\$442.48	\$59.88	\$502.29	\$442.48 CR	\$0.00
39,000\$B ✓	8/5	\$2K	\$18.36	\$256.33	\$68.28	\$1,217.82	\$0.00	\$1,217.82	\$51.82	\$1,268.84	\$1,217.82 CR	\$0.00
38,000\$B ✓	8/5	\$2K	\$8.83	\$358.27	\$235.78	\$1,729.29	\$0.00	\$1,729.29	\$44.17	\$1,773.46	\$1,729.29 CR	\$0.00
37,000\$B ✓	8/5	\$2K	\$7.41	\$366.56	\$366.56	\$1,777.41	\$0.00	\$1,777.41	\$37.84	\$1,814.45	\$1,777.41 CR	\$0.00
36,000\$B	5	\$2K	\$6.11	-	\$245.53	\$0.00	\$1,197.14	\$1,197.14	\$38.53	\$0.00	\$38.53	\$1,227.67
35,000\$B	5	\$2K	\$4.94	-	\$66.98	\$0.00	\$318.23	\$318.23	\$24.78	\$0.00	\$24.78	\$334.92
34,000\$B	4	\$2K	\$3.92	-	\$6.91	\$0.00	\$11.99	\$11.99	\$15.66	\$0.00	\$15.66	\$27.65
33,000\$B	3	\$2K	\$3.84	-	\$8.25	\$0.00	-\$8.37	-\$8.37	\$9.11	\$0.00	\$9.11	\$8.74
32,000\$B	2	\$2K	\$2.38	-	\$8.88	\$0.00	-\$4.68	-\$4.68	\$4.68	\$0.00	\$4.68	\$8.81
31,000\$B	1	\$2K	\$1.78	-	\$8.88	\$0.00	-\$1.78	-\$1.78	\$1.78	\$0.00	\$1.78	\$8.00
CONDOR TOTALS						\$5,866.48	\$1,485.91	\$7,352.37	\$432.65	\$6,194.04	\$5,761.38 CR	\$1,590.99

On the last day (0DTE), expiry, Bitcoin spot price had declined to \$36,572 where our 5 36,000\$B settled to cash in the amount of \$428 each. Before settling to cash:

INITIAL COST \$432.65		HARVESTED \$6,194.04		RUNNING COST \$5,761.38 CR		VAR \$2,140.00		TOTAL P&L \$7,901.38						
PORTFOLIO TABLE			PYRAMID VIEW			CHAIN			ORDERS					
TABLE VIEW: CONDOR BY BUTTERFLY														
\$SMARTBUTTERFLY / DTE			QTY	RANGE	AVG PRICE	LAST HVST	CURR PRICE	REALIZED P/L	UNREALIZED P/L	TOTAL P/L	INITIAL COST	HARVESTED	RUNNING COST	VAR
🐛 CONDOR (BABIES COMBINED) - 0 DTE BTC \$36,572														
44,000\$B			1	\$2K	\$18.72	-	\$0.00	\$0.00	-\$18.72	-\$18.72	\$18.72	\$0.00	\$18.72	\$0.00
43,000\$B ✓			8/2	\$2K	\$17.05	\$90.59	\$0.00	\$146.17	\$0.00	\$146.17	\$34.10	\$100.27	\$146.17 CR	\$0.00
42,000\$B ✓			8/3	\$2K	\$15.35	\$92.72	\$0.00	\$230.74	\$0.00	\$230.74	\$46.04	\$276.78	\$230.74 CR	\$0.00
41,000\$B ✓			8/4	\$2K	\$13.65	\$94.96	\$0.00	\$323.37	\$0.00	\$323.37	\$54.59	\$377.96	\$323.37 CR	\$0.00
40,000\$B ✓			8/5	\$2K	\$11.98	\$100.96	\$0.00	\$442.40	\$0.00	\$442.40	\$59.08	\$502.29	\$442.40 CR	\$0.00
39,000\$B ✓			8/5	\$2K	\$10.36	\$256.33	\$0.00	\$1,217.02	\$0.00	\$1,217.02	\$51.02	\$1,268.04	\$1,217.02 CR	\$0.00
38,000\$B ✓			8/5	\$2K	\$8.83	\$358.27	\$0.00	\$1,729.29	\$0.00	\$1,729.29	\$44.17	\$1,773.46	\$1,729.29 CR	\$0.00
37,000\$B ✓			8/5	\$2K	\$7.41	\$366.56	\$572.00	\$1,777.41	\$0.00	\$1,777.41	\$37.04	\$1,814.45	\$1,777.41 CR	\$0.00
36,000\$B			5	\$2K	\$6.11	-	\$428.00	\$0.00	\$2,109.47	\$2,109.47	\$30.53	\$0.00	\$30.53	\$2,140.00
35,000\$B			5	\$2K	\$4.94	-	\$0.00	\$0.00	-\$24.70	-\$24.70	\$24.70	\$0.00	\$24.70	\$0.00
34,000\$B			4	\$2K	\$3.92	-	\$0.00	\$0.00	-\$15.66	-\$15.66	\$15.66	\$0.00	\$15.66	\$0.00
33,000\$B			3	\$2K	\$3.04	-	\$0.00	\$0.00	-\$9.11	-\$9.11	\$9.11	\$0.00	\$9.11	\$0.00
32,000\$B			2	\$2K	\$2.30	-	\$0.00	\$0.00	-\$4.60	-\$4.60	\$4.60	\$0.00	\$4.60	\$0.00
31,000\$B			1	\$2K	\$1.70	-	\$0.00	\$0.00	-\$1.70	-\$1.70	\$1.70	\$0.00	\$1.70	\$0.00
CONDOR TOTALS								\$5,866.40	\$2,034.98	\$7,901.38	\$432.65	\$6,194.04	\$5,761.38 CR	\$2,140.00

After settling to cash:

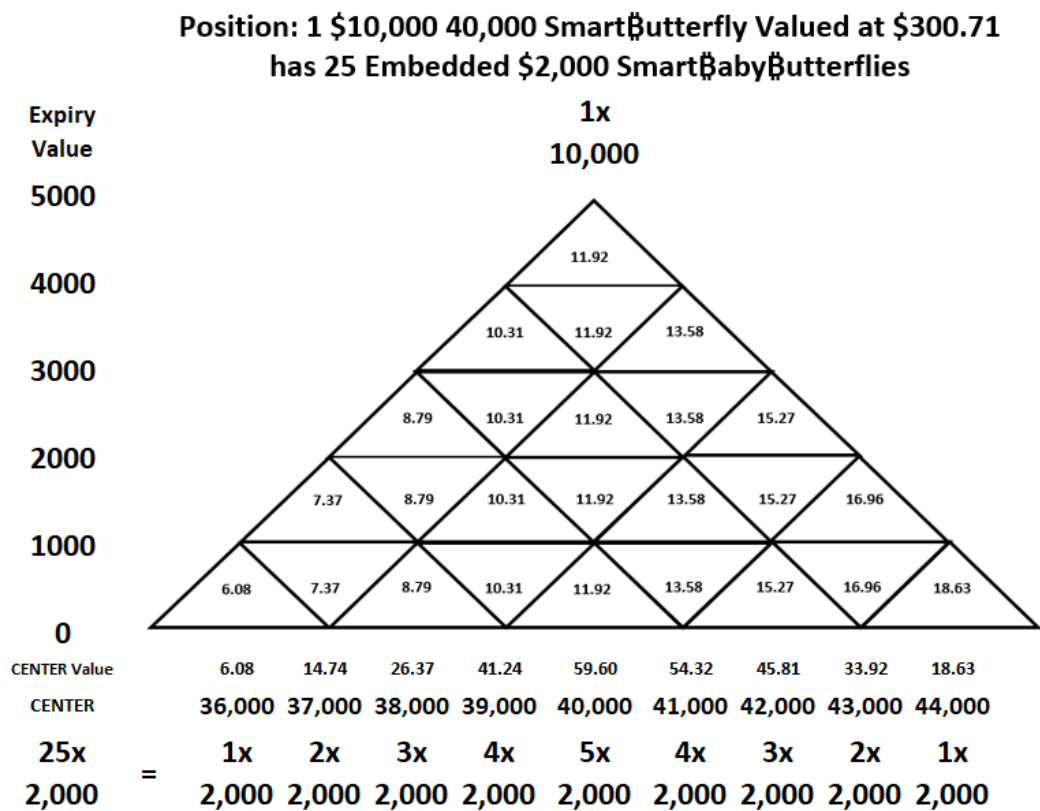
INITIAL COST \$432.65		HARVESTED \$8,291.24		RUNNING COST \$7,858.58 CR		VAR \$0.00		TOTAL P&L \$7,858.58					
PORTFOLIO TABLE			PYRAMID VIEW				CHAIN		ORDERS				
TABLE VIEW: CONDOR BY BUTTERFLY													
SMARTBUTTERFLY / DTE		QTY	RANGE	AVG PRICE	LAST HVST	CURR PRICE	REALIZED P/L	UNREALIZED P/L	TOTAL P/L	INITIAL COST	HARVESTED	RUNNING COST	VAR
CONDOR (BABIES COMBINED) - 0 DTE BTC \$36,572													
44,000\$B		1	\$2K	\$18.72	-	\$0.00	\$0.00	-\$18.72	-\$18.72	\$18.72	\$0.00	\$18.72	\$0.00
43,000\$B ✓		8/2	\$2K	\$17.05	\$90.59	\$0.00	\$146.17	\$0.00	\$146.17	\$34.10	\$100.27	\$146.17 CR	\$0.00
42,000\$B ✓		8/3	\$2K	\$15.35	\$92.72	\$0.00	\$230.74	\$0.00	\$230.74	\$46.04	\$276.78	\$230.74 CR	\$0.00
41,000\$B ✓		8/4	\$2K	\$13.65	\$94.96	\$0.00	\$323.37	\$0.00	\$323.37	\$54.59	\$377.96	\$323.37 CR	\$0.00
40,000\$B ✓		8/5	\$2K	\$11.98	\$100.96	\$0.00	\$442.40	\$0.00	\$442.40	\$59.08	\$502.29	\$442.40 CR	\$0.00
39,000\$B ✓		8/5	\$2K	\$10.36	\$256.33	\$0.00	\$1,217.02	\$0.00	\$1,217.02	\$51.02	\$1,268.04	\$1,217.02 CR	\$0.00
38,000\$B ✓		8/5	\$2K	\$8.83	\$358.27	\$0.00	\$1,729.29	\$0.00	\$1,729.29	\$44.17	\$1,773.46	\$1,729.29 CR	\$0.00
37,000\$B ✓		8/5	\$2K	\$7.41	\$366.56	\$572.00	\$1,777.41	\$0.00	\$1,777.41	\$37.04	\$1,814.45	\$1,777.41 CR	\$0.00
36,000\$B ✓		8/5	\$2K	\$6.11	\$428.00	\$428.00	\$2,066.67	\$0.00	\$2,066.67	\$30.53	\$2,097.20	\$2,066.67 CR	\$0.00
35,000\$B		5	\$2K	\$4.94	-	\$0.00	\$0.00	-\$24.70	-\$24.70	\$24.70	\$0.00	\$24.70	\$0.00
34,000\$B		4	\$2K	\$3.92	-	\$0.00	\$0.00	-\$15.66	-\$15.66	\$15.66	\$0.00	\$15.66	\$0.00
33,000\$B		3	\$2K	\$3.04	-	\$0.00	\$0.00	-\$9.11	-\$9.11	\$9.11	\$0.00	\$9.11	\$0.00
32,000\$B		2	\$2K	\$2.30	-	\$0.00	\$0.00	-\$4.60	-\$4.60	\$4.60	\$0.00	\$4.60	\$0.00
31,000\$B		1	\$2K	\$1.70	-	\$0.00	\$0.00	-\$1.70	-\$1.70	\$1.70	\$0.00	\$1.70	\$0.00
CONDOR TOTALS							\$7,933.07	-\$74.49	\$7,858.58	\$432.65	\$8,291.24	\$7,858.58 CR	\$0.00

The total profit of \$7,858.58 from a cost of \$432.65 means that the harvested proceeds amounted to \$8,291.24 out of a maximum possible of \$5,000. If there was no harvesting, the initial condor would have settled at its \$5,000 maximum (\$1,572 for the 40,000\$B plus \$3,428 for the 35,000\$B), a profit of \$4,567.35; harvesting added \$3,291.23 on top of that. Again, the strategy here was to pick a target two to three months out and wait until two weeks to go when butterflies blossom and if and when the Baby CENTERS were visited, then harvest the inventory there. The image below shows all the orders.

WHITE PAPER ORDERS - THROUGH STEP 11 (SETTLED)										
TIME / STEP	SIDE	\$SMARTBUTTERFLY	RANGE	QTY	ORDER TYPE	STATUS	FILL PRICE	EDGE FEE	NET CASH	
Entry - 79 DTE	BUY	40,000\$B	\$18K	1	MARKET	FILLED	\$300.71	\$1.50	-\$302.21	
Entry - 79 DTE	BUY	35,000\$B	\$18K	1	MARKET	FILLED	\$129.79	\$0.65	-\$130.44	
14 DTE - \$43,000	SELL	43,000\$B Baby	\$2K	2	AT CENTER	FILLED	\$90.59	\$0.91	\$100.27	
14 DTE - \$42,000	SELL	42,000\$B Baby	\$2K	3	AT CENTER	FILLED	\$92.72	\$1.39	\$276.78	
14 DTE - \$41,000	SELL	41,000\$B Baby	\$2K	4	AT CENTER	FILLED	\$94.96	\$1.90	\$377.96	
13 DTE - \$40,000	SELL	40,000\$B Baby	\$2K	5	AT CENTER	FILLED	\$100.96	\$2.52	\$502.29	
2 DTE - \$39,000	SELL	39,000\$B Baby	\$2K	5	AT CENTER	FILLED	\$256.33	\$12.02	\$1,268.04	
1 DTE - \$38,000	SELL	38,000\$B Baby	\$2K	5	AT CENTER	FILLED	\$358.27	\$17.91	\$1,773.46	
1 DTE - \$37,000	SELL	37,000\$B Baby	\$2K	5	AT CENTER	FILLED	\$366.56	\$18.33	\$1,814.45	
Expiry - \$36,572	SETTLE	36,000\$B Baby	\$2K	5	CASH SETTLEMENT	FILLED	\$428.00	\$42.00	\$2,097.20	
NET CASH FLOW (FILLED)										\$7,858.58

6. The Concept of Concurrent SmartBaby Configurations

Most people who have read any books on options, including my three, understand the triangular hockey-stick graph at expiry with a flatline floor value of zero on each side of the 45° equilateral triangle just outside of the expiry value range. The image below illustrates this point with the whole big triangle of the 40,000\$ \$10,000 wide SmartButterfly at expiry (without the usual flat lines at zero extending out from both ends beyond 45,000 and before 35,000). The X axis shows the potential expiry value between 0 and 5000. Here, illustrated, is each \$2000 wide Baby and a snapshot of how each Baby’s price fits into the overall price of the \$10,000 wide Butterfly’s price. It may be too traditional options centric, but one idea is to display the positions inside the big \$10,000 triangle and fitting all the \$2,000 SmartBabyButterflies inside it. That would require displaying every other Baby triangle to be turned upside down with its flat side up instead of the flat side down as usually presented:



The last illustrations, on the next three pages, shows how concurrent configurations of SmartBabies can exist for an original parent butterfly. These all have the same exact target range of 40(000) from 40(000) to 80(000) and the exact same target CENTER of 60(000), but different amounts of concurrent Babies.

The top pyramid configures Babies each 2(000) wide. Divide 2(000) into 40(000) to get 20, square it to get 400 Babies.

The 2nd pyramid configures Babies each 4(000) wide. Divide 4(000) into 40(000) to get 10, square it to get 100 Babies.

The 3rd pyramid configures Babies each 8(000) wide. Divide 8(000) into 40(000) to get 5, square it to get 25 Babies.

The 4th pyramid configures Babies each 10(000) wide. Divide 10(000) into 40(000) to get 4, square it to get 16 Babies.

Baby Range	#Babies/Row
2	1
	3
	5
	7
	9
	11
	13
	15
	17
	19
	21
	23
	25
	27
	29
	31
	33
	35
	37
	39
40 to 80	400
Baby CENTERS	40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

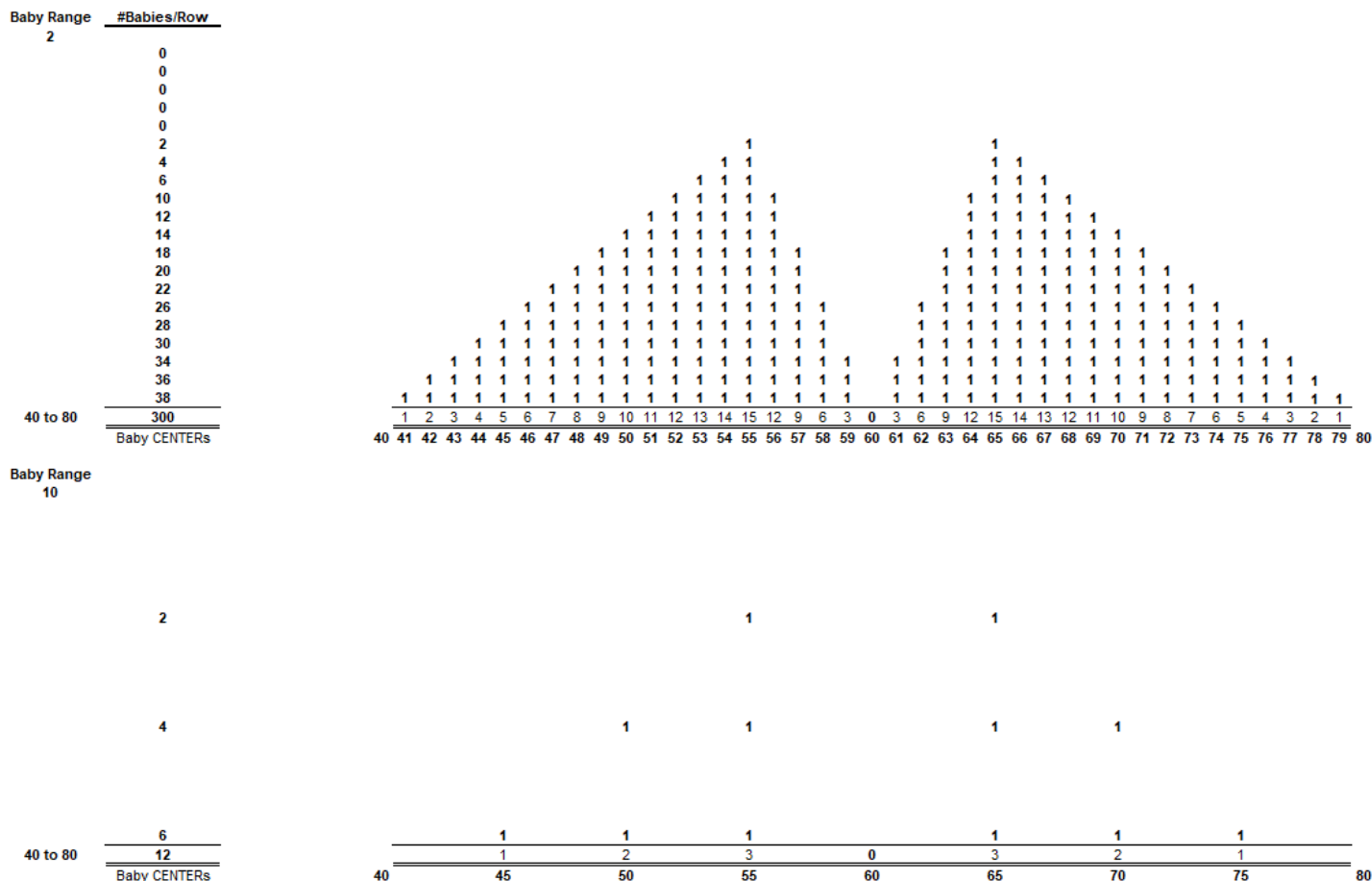
This next thing is super cool! If one harvests the 5 60\$Bs in the 3rd pyramid it concurrently sells 80 of the 1st pyramid and 20 of the 2nd pyramid but eliminates the 4th pyramid because the 4th pyramid no longer shares a divisible numerator and would look like this:

Concurrent Babies for a \$40 Wide 60 CENTER

[illegible]

Alternatively, if instead one harvests the 4 of the 60\$Bs from the 4th pyramid it concurrently sells 80 of the 1st pyramid but eliminates both the 2nd and 3rd pyramids, because they would no longer share divisible numerators and would look like this:

Concurrent Babies for a \$40 Wide 60 CENTER



7. Why Market Makers Will Flock

We envision that market makers will compete to provide liquidity once they understand the edge-per-delta advantage. Market makers earn their living from bid-ask spreads, but traditional options force them to take massive directional risk for relatively small edges.

The Equal Edge-Per-Delta Advantage: An Example

Consider an investment of \$7,500 where both markets offer identical edge-per-delta of \$75:

Traditional At-The-Money Option:

- 1 contract at \$7,500
- Market spread: \$75 wide
- Market maker edge: \$37.50 (half the spread)
- Delta: 50 (0.50)
- Edge-per-delta: $\$37.50 \div 0.50 = \75

Market Maker Reality:

- Traditional options markets - must constantly hedge deltas with futures
- With SBX, near-zero hedging required - deltas too small, naturally balanced
- Futures slippage costs erode profits

- High capital requirements for inventory
- Limited size capacity before hedging becomes prohibitive
- Tiny futures slippage costs
- Net edge: \$37.50 (keeps it all)
- Minimal capital requirements
- Can handle 10x to 100x the volume with same infrastructure
-

SmartButterfly Contracts:

- $25 \text{ contracts} \times \$300 = \$7,500$
- Market spread: \$1.50 per contract (0.5% each side)
- Market maker edge: $25 \times \$1.50 = \37.50 total
- Delta per contract: 2 (0.02)
- Total delta exposure: 50 (distributed across 25 positions)
- Edge-per-delta: $\$37.50 \div 0.50 \text{ total} = \75

The Revolutionary Insight:

Even with identical edge-per-delta (\$75), the butterfly market maker earns the full \$37.50 NET while the traditional option market maker's profits are eroded by hedging costs. The butterfly market maker keeps 100% of the edge. But the real advantage is scalability. The butterfly market maker can handle \$75,000 in customer flow (250 contracts) with the same effort and cost structure that handles \$7,500. The traditional option market maker faces exponentially increasing hedging costs and capital requirements.

What we lose in per-contract edge, we make up exponentially in:

- Zero hedging costs (keeping 100% of edge)
- Massive volume capacity (10x to 100x more contracts)
- Lower capital requirements (minimal margin)
- Natural inventory balance (mostly short, occasionally long)
- Predictable, sustainable profit streams

The User Advantage Creates the Market Maker Advantage:

Users flock to SmartButterflyX because it's the first truly fair options game:

- Know exact fair value within 0.5%
- Can get in and out reliably
- Can "middle the market" with limit orders to reduce costs
- No feeling of being exploited by distorted, wide spreads
- Transparent pricing across all strikes and expiries

This fairness creates massive user adoption (hundreds of millions of contracts annually vs thousands in traditional butterfly markets). Customers accept slightly less favorable pricing (the 0.5% edge) in exchange for guaranteed liquidity, instant fills at displayed prices, and transparent markets - a value trade-off that drives adoption. Market makers compete to provide liquidity because the inventory is superior to anything they've managed before - same edge-per-delta they're used to, but with near-zero hedging costs and unlimited scalability.

Bottom Line: Market makers will make more money from fair spreads on massive volume than wide spreads on limited volume. The math is irrefutable once they see the game data proving sustainable order flow.

The Harvesting Edge Multiplier: Where Market Makers Really Win

The equal edge-per-delta comparison above shows parity. But harvesting baby butterflies creates a cascade of additional edge opportunities that traditional options cannot match.

Consider the harvesting example from Section 5:

- Initial condor purchase: \$432.65

- Total harvested proceeds: \$8,291.24 (through 8 separate harvest transactions)
- Market maker collects 0.5% edge on EVERY transaction

Market Maker Edge Per Contract (with harvesting):

1. Initial purchase: $\$432.65 \times 0.5\% = \2.16
2. Harvest 43,000 butterflies: $\$180.27 \times 0.5\% = \0.90
3. Harvest 42,000 butterflies: $\$278.16 \times 0.5\% = \1.39
4. Harvest 41,000 butterflies: $\$379.84 \times 0.5\% = \1.90
5. Harvest 40,000 butterflies: $\$504.80 \times 0.5\% = \2.52
6. Harvest 39,000 butterflies: $\$1,281.65 \times 0.5\% = \6.41
7. Harvest 38,000 butterflies: $\$1,791.35 \times 0.5\% = \8.96
8. Harvest 37,000 butterflies: $\$1,832.80 \times 0.5\% = \9.16
9. Final settlement: $\$2,140 \times 0.5\% = \10.70

Total market maker edge on ONE actively harvested contract: \$44.10

Now Scale to 25 Contracts (\$7,500 investment):

SmartButterfly Market Maker:

- 25 contracts with active harvesting
- Total edge collected: $25 \times \$44.10 = \$1,102.50$

Traditional Option Market Maker:

- 1 contract at \$7,500
- Entry edge: \$37.50
- Even if option triples to \$22,500, exit edge: \$112.50 (0.5% of \$22,500)
- **Total edge: \$150**

Butterfly market maker earns \$1,102.50 vs Traditional option market maker earns \$150

That's 7.3x more edge on the same initial capital investment.

This assumes the traditional option performs exceptionally well (tripled in value). If it loses value or moves sideways, the traditional market maker collects only the entry edge of \$37.50 - making the butterfly advantage even more dramatic.

The Revolutionary Insight:

Traditional options have only 2 edge-collection opportunities: entry and exit. Actively traded butterflies with harvesting generate 5 to 10+ edge-collection opportunities as users harvest baby butterflies throughout the position lifecycle. Each harvest creates another 0.5% edge for the market maker.

This is why market makers will view butterfly inventory as superior to any other options they manage. The edge-per-delta might be equal, but the total edge opportunity is exponentially greater due to natural position turnover from harvesting activity.

SmartButterflyX proves to have naturally two-sided order flow with extraordinary inventory turnover long before expiration. Here's why this transforms market making:

SmartButterfly Market Making (The New Opportunity):

- Narrow spreads (0.5%-2.0%) attract massive volume
- Minimal hedging required (tiny deltas, defined risk)
- Low capital requirements for enormous size
- Edge-per-delta 50x to 250x better than traditional options

-Customers feel fairly treated, increasing order flow

Market makers will learn that consistent small edges on massive, low-risk volume generates superior profits compared to their traditional options business. Butterfly market makers will generate enormous returns from:

-Thousands of small, profitable trades daily

-Near-zero delta inventory for most of each expiry cycle

-Natural inventory balance (mostly short, occasionally long)

-Massive size capacity: Can handle 10x to 100x more volume than traditional options Predictable, sustainable profit streams

For the vast majority of butterfly positions and timeframes, deltas are so small that hedging requirements are minimal. Compare this to at-the-money options requiring constant delta hedging with futures, generating massive slippage costs that erode profitability.

ⁱ In traditional options markets this would be called a 35,000/40,000/45,000 Butterfly and known as a \$5,000 Butterfly because the distance between wing-strikes (35,000 and 45,000) 5,000 away from the body-strike (40,000).

ⁱⁱ 5,000 if interest rates were 0% for all the expiries. Because interest rates are no longer 0% and vary between expiries, each expiry has a real or synthetic Bitcoin Futures price and each row's sum, specifically, is the present value of \$5,000 calculated with the number of days to go in each row, as well. This means that, theoretically, a market maker who shorts one of each and every single SmartButterfly CENTER and collects over \$5,000, It mean they cannot lose because they will either pay only up to \$5,000 to the winner at an exact CENTER or split the pot between two holders of the adjacent CENTERS surrounding the Bitcoin settlement price. That is also why the exchange can easily guarantee the performance and payoffs for each SmartButterfly.

ⁱⁱⁱ Implied Volatility is a component of traditional options pricing that affects all options spreads.

^{iv} The modeled prices with 79 days to go, in fact, shows the greatest value is at the 35,000 CENTER, not the closest CENTER to the Bitcoin futures price.

Fungible means interchangeable with other butterflies with the same CENTERS and range widths.

^v