OptionVue Research

Ideas for managing risk and enhancing returns

Horizontal Debit Spreads

A good strategy in sideways markets.

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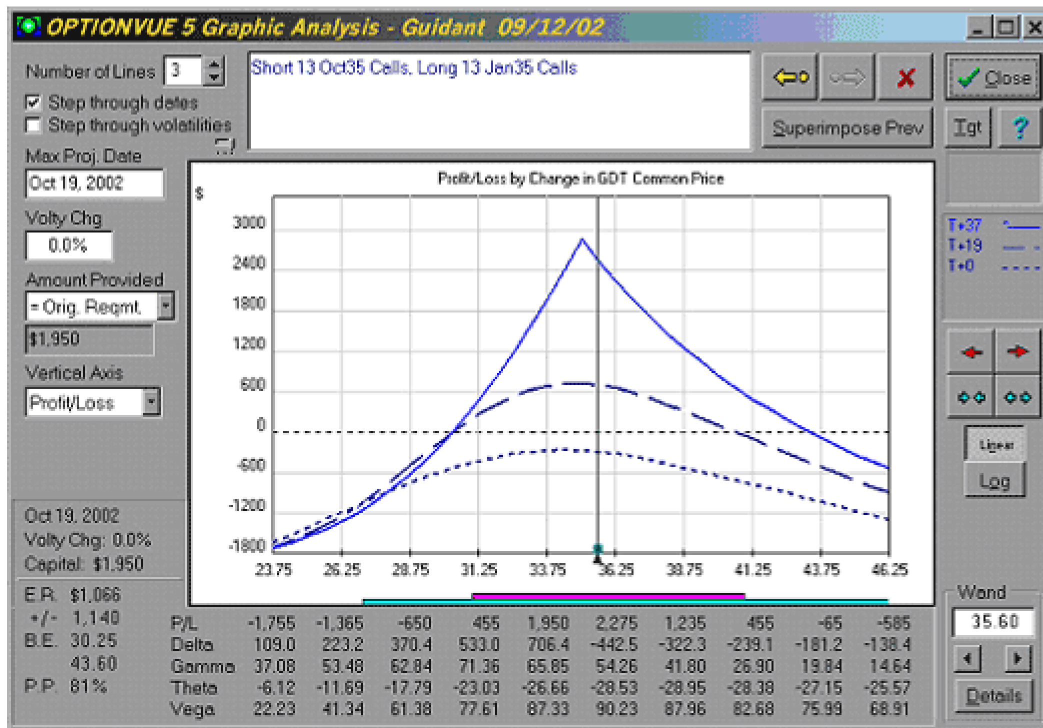
The horizontal debit spread (often called a calendar spread or time spread) is a neutral strategy when constructed using at-the-money options. As such, it is a good strategy to use in a choppy, sideways market. When you can catch the nearby options trading at a higher implied volatility (IV) than the farther out options, you can put on a horizontal debit spread at a considerable advantage.

The horizontal debit spread is constructed by simultaneously selling a nearby option and buying a farther out option of the same type and strike price. The performance graph for a horizontal debit spread is a broad, tent-shaped curve, peaking over the strike price of both options. Below is an example of a horizontal debit spread using call options:



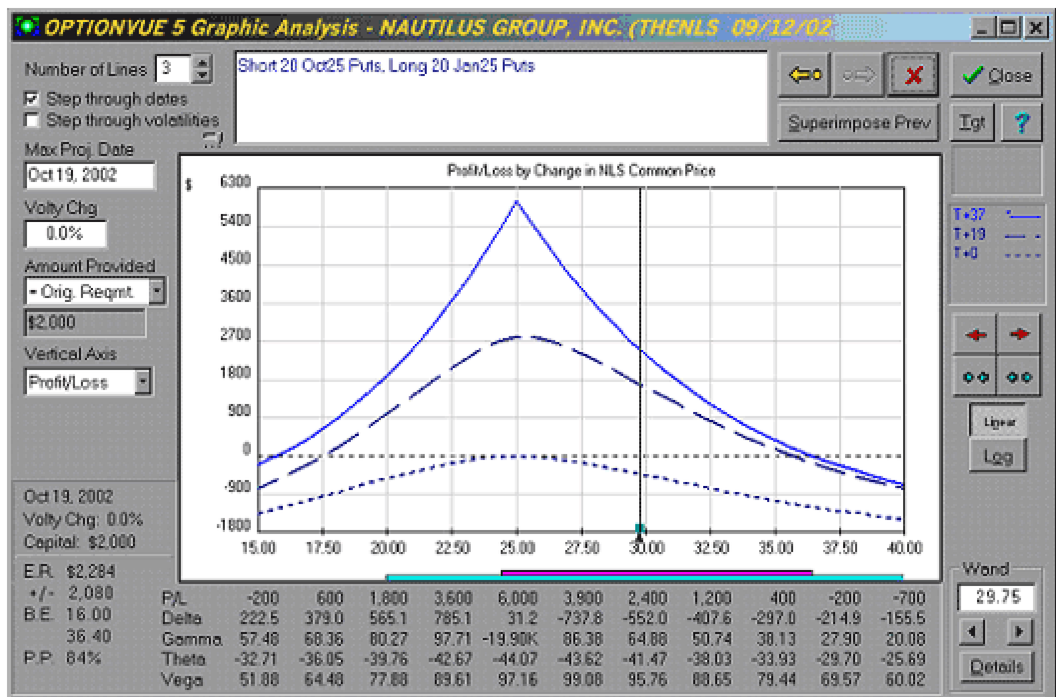
The best possible outcome is always when the underlying finishes right on the strike price. Therefore, it is possible to be somewhat bullish or bearish by selecting a strike price slightly away from the current price. In the example above, with the stock trading at $35.60, if you are bullish you might select 40 or 45 for the strike price.

If you are bullish it is probably best to use calls, and if bearish, puts, in order to steer clear of shorting in-the-money options. The problem with shorting in-the-money options is the possibility of early assignment (assuming we're talking about American style options, which may be exercised at any time by their holder).

Early assignment is more likely when short in-the-money options have very little remaining time value. Depending on the situation, early assignment could either be an important risk or just a nuisance. If early assignment happens with stock puts, you will suddenly be long stock, which, together with your remaining long puts, has almost the same risk/reward profile in the short run as you had before. So there is no urgency to respond. However, if early assignment happens with cash-based index puts, your short leg is suddenly gone (in a cash transaction), leaving you with the long leg by itself, which is highly exposed to market movement.

It is not difficult to find situations where the nearby options are trading at a higher volatility level than the farther out options. A sharp little sell-off often causes this.

At the time of this writing, the nearby options in Nautilus Group (Symbol: NLS) were trading at an IV (implied volatility) 30+ percentage points higher than the farther out options. For example, the October 25 puts were at 101% while the JAN03 25 puts were at 71%. This begs the trader to use a horizontal debit spread – buying the January's and selling the October's. With Nautilus stock at 29.75, the strike of choice for the slightly bearish trader would be 25. The figure below shows the profit diagram for a 20-lot horizontal spread using the 25 puts.



Thanks in part to the extra "kicker" from selling the expensive nearby options, this $2,000 trade has an amazingly broad profit zone ($16 - $36.40). At the peak (with the stock price at 25 in just 37 days), this trade should produce nearly a $6,000 profit!

While a big IV differential gives a substantial theoretical advantage to the horizontal debit spreader, it is important to realize that the differential might be there for a good reason. One reason could be that the stock is in the midst of a big move and no one knows where the stock price might settle.

Another reason could be anticipated news. The trader needs to be aware if there are any pending news announcements that could move the stock dramatically one way or the other. Expected news sometimes is the cause of price abnormalities in the options. Once the news comes out, if the stock moves up or down a significant amount, this tends to hurt a horizontal debit spread. However, the horizontal debit spread is sometimes worth doing despite the awareness of pending news, as often times the stock does not move as much as people expected.