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How Is The Value Area Calculated for the Footprint and Market Profile Charts?

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Overview

We calculate the Value Area based upon the Point of Control (POC). It is based upon the high TPO (letter) count price or the high volume node.

For the Footprint charts this would be the high volume node (price).

For the Market Profile charts you have the ability to display either the value area based upon the TPO count or the value area based upon volume at each price.

The Footprint will use method A for calculating the value area and with the Market Profile there is a choice. You can specify this under the Market Profile preferences window | Price Levels tab | choose which method in the "VA Calc Method" drop down.

Method A

First, we count the number of TPOs in the profile, and take 70% of that number (70% is configurable by the user, but generally represents 1 standard deviation and is commonly accepted as the value area). This is the number of TPOs we're looking for in our Value Area.

Next, the Point of Control (POC) is determined by finding the price which contains the most TPOs. If there is a tie (two or more prices with same number of TPOs), the price closest to the center of the profile is used as the POC. The number of TPOs in the POC are counted and this number is used as our initial TPO count. At this point the Value Area only comprises the POC and the number of TPOs in the POC.

We now inspect the two prices above and below the POC. If the two prices below the POC have more TPOs, those prices are added to the VA. Otherwise, the two prices above the POC are added. We increment our TPO count by the number of TPOs in the prices we just added to the VA. We continue repeating this process, adding two prices at a time, until we have met or exceeded our 70% TPO Count, and completed our VA. The upper price of this Value Area is considered the Value Area High (VAH). The lower price of the VA is considered the Value Area Low (VAL).

eSignal Market Profile charts calculate Value Area in a similar fashion.

Method B

First, we count the number of TPOs in the profile, and take 70% of that number (70% is configurable by the user). This is the number of TPOs we're looking for in our Value Area.

Next, the Point of Control (POC) is determined by finding the price which contains the most TPOs. If there is a tie (two or more prices with same number of TPOs), the price closest to the center of the profile is used as the POC. The number of TPOs in the POC are counted and this number is used as our initial TPO count. At this point the Value Area only comprises the POC and the number of TPOs in the POC.

We now inspect the two prices above and below the POC. If the two prices above the POC have more TPOs, those prices are added to the VA. If the two prices below the POC have more TPOs, those prices are added to the VA. If there is a tie, we add both the two prices above and the two prices below. We increment our TPO count by the number of TPOs in the prices we just added to the VA.

We continue repeating this process until we come to the point where adding two prices would exceed our 70% TPO count, at which point we begin adding one price at a time using the same method. Once our 70% TPO count threshold is met or exceeded, our Value Area is complete. The upper price of this Value Area is considered the Value Area High (VAH). The lower price of the VA is considered the Value Area Low (VAL).

CQG Market Profile charts calculate Value Area in a similar fashion.

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