

# Algorithm: UBS Time Weighted Average Price (UBS TWAP)

**UBS TWAP** is benchmarked to a linear execution profile over a specified time period.

## Parameters

- Start/End Time
- Include Open/Close
- Completion Price
- Percent of Volume

## Key Controls

### Completion price

Optional parameter to indicate level at which the algorithm should override other constraints and seek to complete the order using all available liquidity.

### Volume limit

Will cap the algorithms participation level.

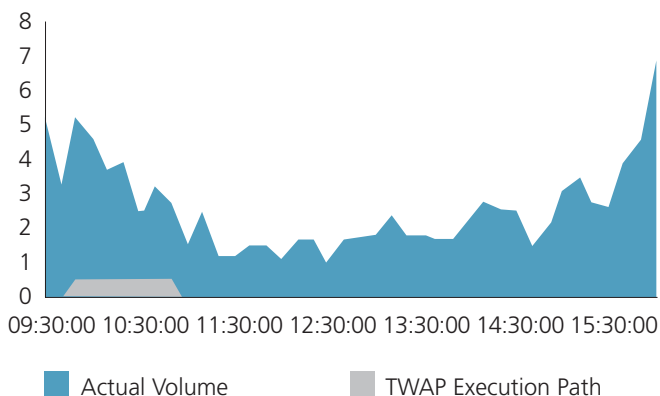
## Considerations

- Minimum duration is one minute.

## Discretion

UBS TWAP algorithm uses a concept of 'discretion' on a micro level when executing. This means it attempts to reduce the number of times it has to cross the spread in order to maintain a predictive/dynamic schedule. By using a variety of parameters, such as stock liquidity, volatility and order size, the algorithm can make discretionary trading decisions.

There are times when this discretion becomes noticeable when trading TWAP. For example, it is not always necessary to immediately trade when UBS receives a TWAP order. The smarter approach is often to join the bid or offer, and then wait to be hit or lifted rather than immediately pay the spread.



Note: In certain scenarios UBS Algorithms can apply a level of discretion to client selected parameters, if it determines there is an opportunity to trade slightly outside of this parameter which will benefit the client's order.

UBS provides Algorithms to IG Markets with both mandatory and optional controlling parameters. The Algorithms made available have been provided based on IG Markets own required specification

If a client would like more details regarding UBS's Algorithmic anti-gaming or negative selection techniques, or any other Algorithmic Trading question, please contact your Electronic Sales Trader or Account Manager.

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