**ARBITRARY SOLUTION TO WORK IN CRYPTOCURRENCIES**

# Arbitrary top down

1. Connect to brokers:
   1. Bitfinex;
   2. Bitstamp;
   3. Kraken;
   4. Poloniex;
   5. Okcoin.
2. Chose pair to work (ex. LTCBTC) and input the % to arbitrary (ex. 0.6%);
3. Get broker prices;
4. Calculate the MIN and MAX in array of prices;
5. if the difference is great than the % to arbitrary:
   1. SELL order in maximum exchange price (Exch A);
   2. BUY order in minimum exchange price (Exch B);
   3. Write trade information in CSV file with the follow structure:
      1. ID, Date and time, Exch A, Exch A order Type (B/S), Exch B, Exch B order Type (B/S), price, Min and Max %, quantity, Status (O);
   4. Block the algorithm to trade the same par in same exchanger while the operation status is Open.
6. Check for close the open operation:
   1. Check the CSV file to list the open operations;
   2. If the difference between Exch A and Exch B where Exch B is great than Exch A at least in % to arbitrary:
      1. BUY order in Exch A;
      2. SELL order in Exch B;
      3. Update CSV file to status close and update the field profit with order profit and the field exchange costs with cost of operation (spread / commissions).
7. Restart new cycle.