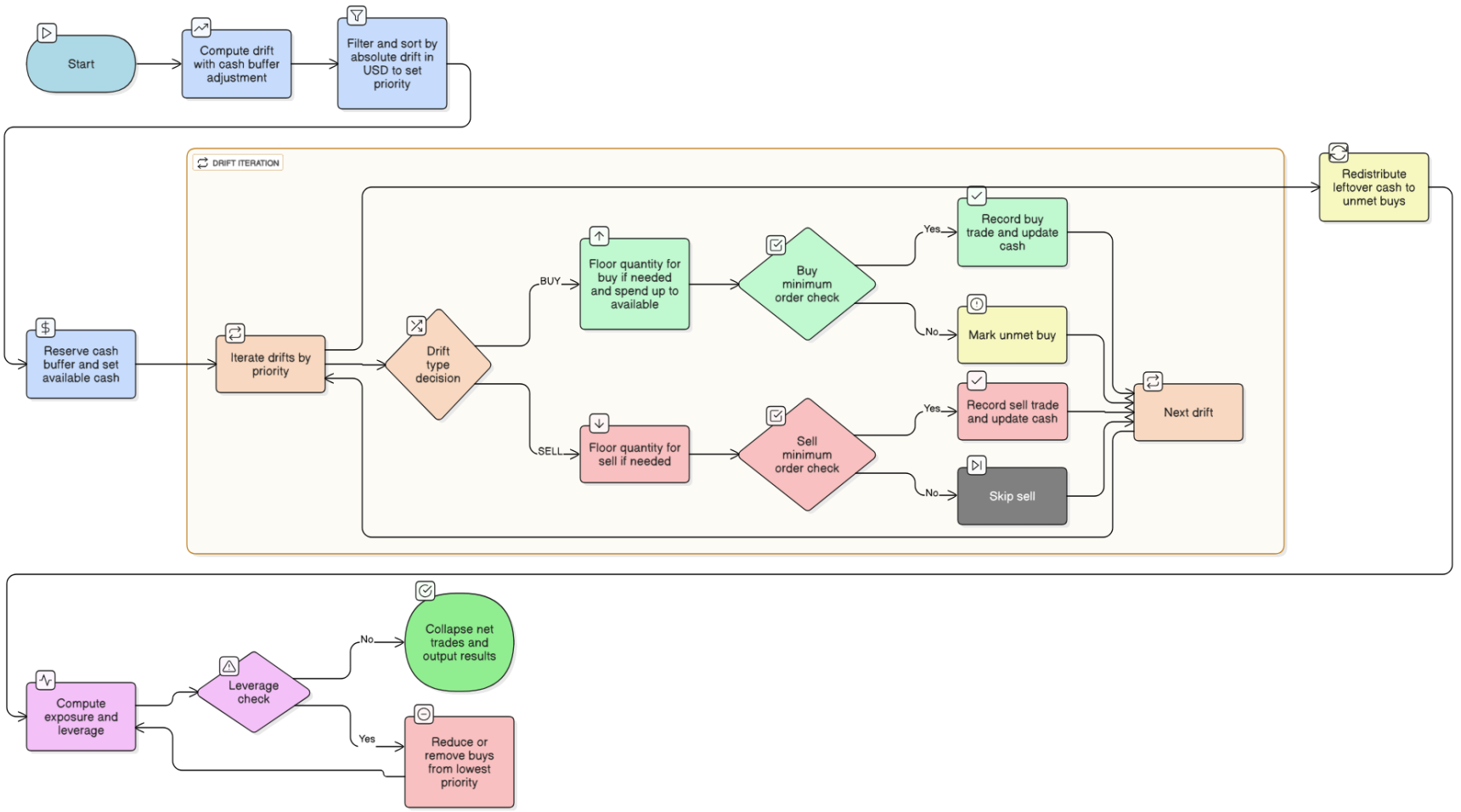
Trade-decision flow

1. **Compute portfolio drift**
    - Current positions are valued and a cash buffer is subtracted from net liquidation to determine the “investable” portion of the portfolio
    - For every symbol, drift (in % and USD) and suggested action (BUY/SELL/HOLD) are calculated
2. **Prioritize symbols**
    - Drifts whose dollar magnitude is below `min_order_usd` are dropped and the remaining records are sorted from largest to smallest absolute drift. Symbols at the end of this list are “low priority.”
3. **Size orders**
    - A reserve based on the cash-buffer configuration is set aside and the remaining cash (which may be negative, implying margin use) is available for trades
    - For each drift in priority order:
        i. **BUY:** Spend up to the lesser of drift notional or available cash. Quantities are floored to whole shares when fractional trading is disabled, potentially leaving unmet amounts for later allocation
        ii. **SELL:** Quantities are likewise floored, reducing the cash raised if partial lots remain
    - After this pass, any cash released by sells is redistributed proportionally across previously unmet buys, again subject to rounding and `min_order_usd` checks
4. **Margin and leverage control**
    - Gross exposure and leverage are computed. If leverage exceeds `max_leverage`, buy orders are reduced or removed starting from the lowest-priority trade (reverse order), with rounding applied to the adjusted quantities
    - Configuration parameters such as `min_order_usd`, `allow_fractional`, `cash-buffer` settings, and `max_leverage` come from settings.ini
5. **Effects on low-priority stocks**
    - Rounding down shares for high-priority buys can free additional cash, but if the remaining amount is below `min_order_usd`, lower-priority symbols may receive no allocation.
    - During leverage reduction, the algorithm trims or removes buy trades in reverse order, so lower-priority symbols are scaled back first, leaving higher-priority allocations intact. The drift records in alphabetical order, so if two symbols are of equal low priority, the one last (e.g. trim in reverse order) in the alphabet gets trimmed first

Trade logic diagram in next page


Start
Compute drift with cash buffer adjustment
Filter and sort by absolute drift in USD to set priority
DRIFT ITERATION
Redistribute leftover cash to unmet buys
Reserve cash buffer and set available cash
Iterate drifts by priority
Drift type decision
BUY
Floor quantity for buy if needed and spend up to available
Buy minimum order check
Yes
Record buy trade and update cash
No
Mark unmet buy
SELL
Floor quantity for sell if needed
Sell minimum order check
Yes
Record sell trade and update cash
No
Skip sell
Next drift
Compute exposure and leverage
Leverage check
No
Collapse net trades and output results
Yes
Reduce or remove buys from lowest priority