Strategy Settings Optimization — Executive Summary
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Analysis of the "Cloud-TK Base TK Exit" backtest reveals a strategy that is unprofitable after costs (Profit Factor: 1.07) and suffers from an exceptionally high maximum drawdown (63.6%). The core issues are frequent whipsaws in non-trending markets and inadequate risk control. The following adjustments are proposed to improve risk-adjusted performance by enhancing signal quality and refining risk management.

*   **Strengthen Entry Signal Quality to Reduce Whipsaws**
    The current logic generates numerous low-quality signals, resulting in trades that are quickly stopped out. This is the primary driver of the low win rate and high transaction costs.
    *   **Recommendation:** Add the `ChikouAbovePrice` check as a mandatory buy condition. This classic Ichimoku filter provides powerful confirmation, ensuring price has clear momentum before entry. This change is expected to significantly increase the win rate by filtering out entries in ranging or weak-trending markets.

*   **Adapt Ichimoku Periods for Crypto Markets**
    The standard parameters (9, 26, 52) are calibrated for traditional markets and daily timeframes. On lower timeframes in the 24/7 crypto market, they generate excessive noise.
    *   **Recommendation:** Increase the slower periods to `Kijun: 30` and `Senkou B: 60` (with corresponding offsets). This will create smoother, more reliable signals and a more stable Kumo cloud, improving the strategy's ability to identify and follow significant trends.

*   **Overhaul Risk and Position Management to Control Drawdown**
    The 63.6% drawdown is unacceptable. It stems from a tight stop-loss that is ill-suited to BTC volatility and a fixed position sizing model that fails to adapt to changing risk.
    *   **Recommendation:** Widen the stop-loss to `8.0` to give valid trades room to mature. More critically, switch position sizing from `fixed` to `volatility`-based (e.g., ATR-based). This is a crucial step to normalize risk per trade, systematically reduce exposure during high-volatility periods, and protect capital from severe drawdowns.

Recommended setting changes:
- tenkan_period: current=9, suggested=9. Maintain the current Tenkan period for sensitivity to price action, while relying on slower components for trend filtering.
- kijun_period: current=26, suggested=30. Lengthening the Kijun provides a more stable momentum baseline, filtering out minor fluctuations and reducing false crossover signals common in volatile markets.
- senkou_b_period: current=52, suggested=60. A longer Senkou B period creates a more robust, slower-reacting cloud to serve as a stronger long-term trend filter, reducing entries during choppy markets.
- chikou_offset: current=26, suggested=30. Align the Chikou offset with the new Kijun period to maintain the intended relationship between current and past price action for confirmation signals.
- senkou_offset: current=26, suggested=30. Align the cloud's forward projection with the new Kijun period for consistent signal timing and structure.
- Signal logic:
  • buy_logic: AND -> AND (The AND logic remains appropriate; the focus is on improving the quality of the conditions.)
  • sell_logic: AND -> AND (The exit logic remains unchanged to first isolate the impact of improved entry signals.)
  • add_conditions: ['ChikouAbovePrice']
- Risk management:
  • stop_loss_pct: 5.0 -> 8.0 (The current stop is frequently triggered by market noise. A wider stop provides more breathing room for trades, reducing premature exits on valid entries.)
  • take_profit_pct: None -> 25.0 (Introducing a wide take-profit secures profits from exceptional outlier moves, which can improve the strategy's Sharpe ratio and reduce give-back in trend reversals.)
  • position_sizing: fixed -> volatility (Fixed sizing contributes to high drawdowns. Volatility-based sizing normalizes risk per trade, systematically reducing exposure during volatile periods to protect capital.)

Experiments to run:
- Ichimoku Period Optimization: Systematically test longer Ichimoku periods to find a combination that best filters noise for the 1h/4h timeframe in 24/7 crypto markets.
- Confirmation Signal A/B Test: Isolate and quantify the impact of the Chikou Span confirmation filter on win rate, profit factor, and drawdown against the baseline strategy.