

Pine Script v6 Has Landed: New Features and Capabilities

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Introduction

Today, we are happy to announce the release of Pine Script v6! This upgraded version of our trader-focused programming language includes a variety of optimizations and long-requested feature enhancements, offering greater efficiency and utility to Pine Script programmers, setting the stage to take the language to new heights. This post outlines the most notable upgrades in Pine v6. All new features from this point onward will be implemented exclusively in the latest Pine version.

Enhanced Text Sizing and Formatting

Now, with the new typographic point specification, you can ensure text size is exactly how you want it. You can even create massive text sizes that were impossible to achieve in previous Pine versions. Additionally, we've introduced a new `text_formatting` parameter for drawing types, which you can use to make text italicized, bold, or both. This provides much greater control over visual presentation of indicators and strategies.

Unlimited Strategy Trades

Active strategy script users might know that in Pine v5, a strategy can simulate up to 9000 trades before halting calculations and raising an error, unless using Deep Backtesting mode. This limitation is especially inconvenient for strategies that simulate frequent trades. In Pine Script v6, strategies no longer stop calculating or raise an error after reaching the 9000 trade limit. Instead, the strategy trims the oldest orders to make space for new ones. Trimmed orders don't appear in the Strategy Tester, but the strategy continues calculations without issue.

Negative Array Indexing

In Pine v6, the `array.get()`, `array.set()`, `array.insert()`, and `array.remove()` functions can now accept negative index arguments to reference items starting from the end of an array, offering a more concise and convenient way to reference array elements in reverse order. This Python-like feature simplifies code when working with recent data points or

implementing queue-based logic.

Improved Strategy Testing

The `strategy.closedtrades.first_index` variable allows checking the trade index of the oldest non-trimmed order, usable as the `trade_num` argument in `strategy.closedtrades.*` function calls. This enables better tracking of active trades and performance analysis even with the new unlimited trades feature. Combined with enhanced backtesting capabilities, this gives strategy developers unprecedented insight into system performance.

Enhanced Table and Label Functionality

Tables and labels gain additional customization options in v6. You can now specify exact point sizes for text, create more sophisticated layouts, and control text formatting more precisely. These enhancements make it easier to create professional-looking dashboards and information displays directly on your charts. The flexibility allows for both simple information displays and complex multi-panel layouts.

Performance Optimizations

Under the hood, Pine Script v6 includes numerous performance optimizations that make scripts execute faster and more efficiently. These improvements are especially noticeable in complex strategies with many calculations or large datasets. The compiler has been enhanced to better optimize common patterns, reducing computation time and enabling more sophisticated analysis without hitting timeout limits.

Migration from v5 to v6

Migrating existing scripts from Pine v5 to v6 is straightforward. Simply change the version declaration from `//@version=5` to `//@version=6` at the top of your script. Most v5 code will work without modification in v6. However, to take advantage of new features like negative array indexing or unlimited trades, you'll need to update your code to use the new capabilities. The Pine Script documentation provides detailed migration guides and examples.

Best Practices for v6

When developing with Pine Script v6: Take advantage of negative indexing for cleaner code, remove trade limits that constrained v5 strategies, use enhanced text formatting for better visual presentation, leverage performance improvements by refactoring complex calculations, and thoroughly test strategies with the enhanced backtesting features. These practices will help you create more robust and maintainable scripts.

Community and Resources

The Pine Script community continues to grow and share knowledge. TradingView's script library contains thousands of indicators and strategies, many open-source for learning. The Pine Script documentation has been updated with v6 examples and best practices. Community forums and the Pine Script Q&A; section provide support when you encounter challenges. Contributing to open-source scripts helps others while improving your own skills.

Conclusion

Pine Script v6 represents a significant step forward in making TradingView's programming language more powerful and user-friendly. The combination of unlimited trades, negative array indexing, enhanced formatting, and performance improvements empowers developers to create more sophisticated trading systems and indicators. Whether you're a beginner learning Pine Script or an experienced developer maintaining complex strategies, v6 provides the tools to take your trading analysis to the next level. Start experimenting with v6 today to unlock its full potential.

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