



# Accelerate your trading systems with unmatched Java performance and predictability

No-pause ultra-low latency Zing brings Java to a new level of performance by providing certainty of execution and guaranteed throughput with no surprises



## Algo Trading with Java

Electronic trading systems power today's ultra-fast, ultra-competitive markets and are the profit and loss centers for both agency and proprietary trading firms. Algorithms (algos) are at the heart of these systems and are designed to execute trading strategies across multiple asset classes in the context of a complex global market structure. These highly sophisticated event-driven systems depend on real-time streaming market data and require ultra-low latency, high throughput and predictability in order for firms to generate alpha. As a result, advanced technology plays a critical role in this competitive global market and is often the difference between profits and losses.

Conventional, one-size-fits-all JVMs are unable to meet the strict performance requirements of the electronic trading world in spite of costly and time-consuming attempts at tuning, selective use of Java APIs and special libraries. As a result, the wrong JVM choice can adversely impact a firm's ability to compete and survive.

The Zing® no-pause ultra-low latency JVM from Azul Systems establishes a new performance standard unmatched in the industry and meets or exceeds requirements for ultra-low latency electronic trading. Zing is a smart JVM that eliminates the business risk associated with application pauses, latency spikes and traditional memory ceilings by guaranteeing predictable, real-time behavior. Azul's innovative C4 no-pause garbage collection algorithm is the force behind Zing that takes Java to this new performance level. Zing also reduces performance tuning to a single parameter, freeing product development to focus on implementing new trading strategies rather than on costly and frequent JVM tuning cycles that fall short of requirements.

Zing meets the Java SE standard and is a full-featured JVM that requires no code re-compilation or special configuration. Zing also includes a real-time zero-impact monitoring and management tool that provides complete visibility into production application behavior.

## BENEFITS OF ZING FOR TRADING

- **Provide certainty of behavior** Eliminate application pauses and latency spikes
- **Ultra-low latency** Increase throughput at far lower average latencies
- **Improve time to market for new algos** Eliminate the need for most application tuning
- **Plug-and-play** conforms to the Java SE standard and requires no code re-compilation or special configuration
- **Automatically handle peak loads** Eliminate tail risk associated with memory configuration
- **Unmatched performance and scalability** Proven high performance JVM for trading



## Zing is the best JVM for Trading Systems

Zing delivers unmatched ultra-low latency with predictable no-pause real-time behavior and eliminates trading system tail risk that can adversely impact the end-of-day P&L statement.

### Some Azul Systems Partners in Algorithmic Trading

ULLINK products deliver a competitive advantage to traders through the most efficient trading system in terms of low latency, throughput and scalability. [www.ullink.com](http://www.ullink.com)



OptionsCity is the developer of Metro, the award-winning electronic trading and market-marking platform. Its latest product, Freeway, is a multi-asset automated trading platform designed to offer developers and traders a comprehensive environment to create, test, and deploy algorithmic trading strategies with micro-second execution. [www.optionscity.com](http://www.optionscity.com)



Solarflare develops network interface software and hardware to transform the way applications use networks, providing industry-leading application acceleration for the most demanding scale-out compute environments. [www.solarflare.com](http://www.solarflare.com)



Informatica provides data integration software and services that enable organizations to gain a competitive advantage in today's global information economy by empowering them with timely, relevant and trustworthy data for their top business imperatives. [www.informatica.com/us](http://www.informatica.com/us)



60East Technologies was founded in 2010 by world-class system programming experts. The team developed a technology called AMPS that for highly scalable real-time applications. The goal of 60East Technologies is to build the fastest real-time streaming database software so application developers deliver solutions that outperform their peers. [www.crankuptheamps.com](http://www.crankuptheamps.com)



TIBCO StreamBase, the leader in high performance Complex Event Processing (CEP), provides software for rapidly building systems that analyze and act on real-time streaming data for instantaneous decision-making. [www.streambase.com](http://www.streambase.com)



To browse the full Azul Systems ecosystem, visit [www.azulsystems.com/partners/isv-partners](http://www.azulsystems.com/partners/isv-partners)

### CUSTOMER SUCCESS

## Trading Desk

### Problem:

Trading buy and sell decisions needed to occur at the microsecond level but JVM latency slowed down response time and throughput

### Solution: Azul Zing

#### Benefits:

- Java latencies in the single-digit microsecond range
- Significant improvement in throughput and average latency
- Faster time to market for deployment of new trading algos

To get started, contact us:

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[www.azulsystems.com/lowlatencyjava](http://www.azulsystems.com/lowlatencyjava)

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