

Scrittura Overview Brochure

Interwoven's Capital Markets Solutions

Innovative Solutions for Regulatory Compliance and Securities Operations

Interwoven's Scrittura is recognized as the market leader in automation of documentation, processes and counterparty messaging for middle- and back-office operations in the financial securities and capital markets. Scrittura's suite of innovative solutions enables financial institutions to adapt to the increasingly complex workflow needs of middle- and back-office processing of non-exchange-based trades. Built to automate and manage the full lifecycle of trade documentation and operations, Scrittura solutions enable capital markets operations professionals to easily manage increasing volumes of multiple transaction types—streamlining compliance while reducing costs and mitigating operational risk.

Today, Scrittura solutions are the trusted choice of more than 30 of the world's largest dealers and investment managers, who rely on Scrittura products to transact billions of dollars in derivatives every day.

A competitive marketplace with increasing risks and regulatory standards

The financial services industry continues to experience tremendous change and turbulence while moving at a breakneck pace. The explosive growth in derivatives volumes, an increased regulatory spotlight, and the accelerated convergence of exchange-traded and OTC markets combine to create ever-expanding risks for financial institutions.

This volatility is exacerbated by the disparate transaction processing environments that exist in the majority of financial organizations. An industry-wide vulnerability of poor back office infrastructure has resulted in severe trade backlogs, transactional errors, and manual processes for trade negotiation, confirmation and settlement. Given the recent regulatory attention these issues have prompted, it is clear that the automation of trade documentation is critical—if the financial services industry is to mitigate the significant operational risk created by this vulnerability and successfully reach the industry's goal of moving towards T+0 straight through processing (STP).

Solutions for compliance, audit and control, and regulatory reporting

Interwoven draws on its market leadership and expertise in Collaborative Document Management, automated document tracking, archival and retrieval, and high-volume records management, to offer a powerful suite of solutions to the financial services customer to automate and streamline the entire problem set around compliance management, real-time audit and controls, and regulatory reporting and records.

Interwoven's Scrittura suite of solutions makes the critical difference

Interwoven's Scrittura suite of configurable and cost-effective solutions meets specific workflow, communication, and document automation needs for structured financial products. Each Scrittura solution enables

efficient pre- and post-trade activity, through instant document generation, integrated document management, automated workflow routing, full audit trails, and real-time reporting capabilities—bringing certainty to trade processes and helping financial institutions stay ahead of the regulatory curve.

The Scrittura Solution Suite is comprised of the following solutions that can be installed independently or operate seamlessly together:

Scrittura SellSide Solution

Scrittura SellSide automates, validates and simplifies the confirmation and documentation processes for OTC derivatives and structured products. Scrittura's flagship solution, SellSide greatly reduces trade backlogs, while simultaneously increasing trade confirmations accuracy through sophisticated functionality that:

- Expedites post-trade processing through customizable templates and automated document configuration, enabling financial institutions to support both vanilla and complex structured trades
- Resolves trade-processing errors by automating manual processes such as routing confirmations, advises and schedules for drafting and approval; trade matching, consolidation and analysis reduce outstanding confirmations
- Ensures compliance by enabling on-demand reporting of outstanding trades; dealers can dispatch reports based on

“The original goal of the Scrittura project was to solve our most pressing documentation automation needs. Given our satisfaction and confidence with this product, we are pleased to exercise our option to license Scrittura for other trading areas.”

— David Frankel, Sr. Vice President, AIG

trade type, counter-party and age; push notifications alert traders of impending trade execution or outstanding, unconfirmed transactions

Scrittura P2P™ Solution

Scrittura P2P™ is the industry’s first and only solution that automates the post-trade confirmation process for OTC derivatives directly between financial parties—without the intermediation of a third-party broker. The solution enables financial institutions to:

- Achieve fast, accurate, direct STP between any and all parties via a real-time peer-to-peer infrastructure that eliminates the risks, constraints, inadequacies and delays associated with brokered messaging
- Significantly reduce trade backlogs through a rich, universal message structure that allows bilateral messages to be unique for each set of counter-parties and easily updated as requirements evolve
- Automate trade operations through an actionable workflow with matching and reconciliation capabilities to identify message types and dynamically route messages based on pre-defined rules, greatly reducing confirmation processing times

Scrittura Commodities Solution

Scrittura Commodities automates the communication and confirmation process for both energy and broader commodity trades. This comprehensive solution is designed to bring total efficiency to trade confirmations by:

- Eliminating costly manual errors through automation and customization; traders create and edit negotiated documents for natural gas and electricity in familiar word processing environments without formatting difficulties or loss of document control

Affiliations	
The Interwoven Scrittura Solution Suite is supported by strong affiliations with industry-leading associations, to ensure market compliance as well as strategic alliances to deliver best-in-class, end-to-end solution implementations.	
Technology Integration 	Scrittura is fully-integrated with DTCC Deriv/SERV Trade Information Warehouse
Industry Associations    	
Strategic Alliances    	

- Resolving trade discrepancies through auditable trade annotations, precision queries on unmatched trades, and barcodes that automatically match returned documents against existing trades
- Minimizing operational risk by integrating front and back office systems; Scrittura allows users to send messages to ICE for trade submission, cancellation and disputes, and automatically routes trades to an automated eConfirm workflow, based on counter-party and product group criteria
- Speed up trading agreement assembly via client-ready contracts from an extensible template library, minimizing the potential for errors or stalls along the way
- Control the negotiation process in a truly iterative and collaborative environment through an automated workflow, ultimately eliminating backlogs of unsigned agreements
- Improve decision making for all participants and ensure compliance oversight with powerful sequence control, security, audit, and reporting mechanisms

Scrittura Master Agreement Solution

Scrittura Master Agreement automates and validates the lifecycle of legal agreements for trading by actively and accountably engaging all transacting parties within a secure, controlled, and coordinated environment. The solution streamlines the master agreement process for OTC derivatives trading, empowering dealers to:

Scrittura BuySide Solution

Scrittura BuySide is among the most cost-effective confirmations solutions in the market, tailored to the specific needs of asset- and portfolio-managers on the buy-side. It automates and validates the incoming confirmation process for OTC derivative instruments to:

“There are many potential economies to be maximized in the derivatives documentation process. Scrittura fits in with our bank-wide strategy to increase efficiency by leveraging modern intranet technologies.”

— Luzia Nicosia, Commerzbank’s VP of Interest Derivatives Operations

- Reduce trade processing times through an automated workflow that routes incoming confirmations, reviews legal terms, approves and stamps electronic signatures and dispatches replies to counter-parties, pinpointing erroneous or incomplete data
- Increase regulatory compliance by tracking all inbound documentation; at any approved user’s command, any trade variable can be viewed, edited and downloaded; a full audit trail allows users to locate documents in the workflow process at any given time
- Improve operational efficiencies through real-time reporting that alerts for trade execution dates, as well as outstanding and unconfirmed trades; track these trades by type, counter-party and/or age.

Scrittura software platform: a scalable and extensible architecture

The Scrittura Solution Suite relies on a Web-enabled technology platform at the core of which are three powerful engines that can be deployed independently or jointly to achieve the highest level of value.

DocGenerator

Scrittura’s DocGenerator component engine creates trade-related documents. Through dynamic templates, data feeds can be taken from external sources, enhanced and modified by a controlled group of users, and transformed into a final document.

DocManager

Scrittura’s DocManager provides structured, single-source storage for all trade-related documentation, including support for automatic indexing, version control, and flexible search criteria.

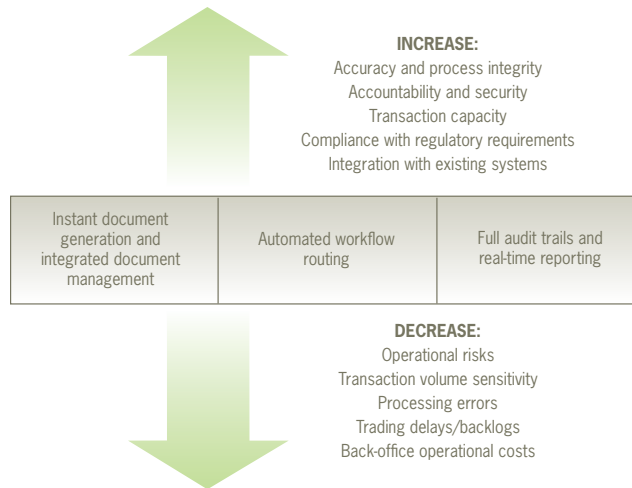
Workflow Manager

Scrittura’s Workflow Manager enables back-office personnel to customize and automate the entire workflow process for

complete lifecycle management of trade documentation.

Additional Scrittura components extend the three core engines to enhance usability and meet industry-specific requirements.

- The **Document Imaging Framework** uses plug-in bar-code and OCR technology to process inbound documents, passing decoded information to the DocManager and Workflow Manager engines.
- The **Audit & Reporting Framework** provides out-of-the-box and customizable reports to meet operational and regulatory needs.
- **Scrittura WordML®** is a powerful addition to DocGenerator that allows templates and generated documents to be maintained in Microsoft Word.
- **Scrittura Messaging** comprises the messaging infrastructure of the Scrittura software platform; it generates FpML, and other XML-based message types for use with central trading and matching services such as DTCC, EDX, and SWIFT, enabling true STP of OTC derivatives trading.



- **Scrittura Matcher** is a comprehensive matching engine that can be used on a bi-lateral or hosted basis for diverse matching of OTC messages.

Proven benefits to financial institutions

The Scrittura solution suite is aimed squarely at the real-world trade processing problems in back-office departments burdened with high volume, time-sensitive transactions, and data-intensive documentation. As customers have repeatedly attested, Scrittura solutions deliver the benefits necessary to achieve cost-effective deployments and typical ROIs within 12 months.

Customer success stories

AIG International Inc.

AIG International Inc. (AIGI), an American International Group, Inc. member company, has deployed Scrittura SellSide in its Greenwich, CT trading and operations headquarters to streamline generation and tracking of confirmations for foreign exchange options. This implementation interfaces directly with AIGI’s proprietary

“Scrittura is already reducing the ‘paper chase’ in our derivatives documentation group.”

—Manolo Bernardo, Commerzbank’s Assistant Vice President

foreign exchange trading system, to allow AIGI to automate generation, signing, and tracking of trade confirmations, based on International Swap Dealers Association and International Foreign Exchange documentation standards—significantly enhancing accuracy and data integrity and minimizing operational risk in the back-office.

Commerzbank North America

Commerzbank North America has implemented the Scrittura SellSide solution in its New York office to automate the generation, signing, and tracking of trade confirmations, based on both International Swap Dealers Association and German Deutscher Rahmenvertrag documentation standards. Scrittura’s scalable and flexible solution allows Commerzbank to customize templates and codify business rules to follow its internal documentation practices—greatly reducing complexity and improving efficiency in the trade confirmation process.

Representative Customers

An increasing number of the world’s leading financial institutions are deploying Scrittura’s innovative solutions to improve their operational efficiency and effectiveness, including:

- AIG International Inc.
- Banco Bilbao Vizcaya Argentaria
- Bank of America
- Bank One
- Bear Stearns

- Barclays Capital
- CSFB
- Commerzbank
- Danske Bank
- Deutsche Bank
- Dexia Bank
- Greenwich Capital Markets
- HypoVereinsbank
- Landesbank Hessen Thuringen
- Mitsubishi Securities Intl plc.
- Morgan Stanley
- Rabobank
- Royal Bank of Scotland
- Scotia Capital
- Standard Chartered Bank
- Wachovia Bank
- Toronto Dominion Bank
- Grupo Santander

Interwoven’s comprehensive industry experience and technological leadership are the driving forces behind the breakthrough Scrittura Solution Suite. These customers have come to rely on Interwoven to power sophisticated, intuitive solutions that increase transaction capacity, inject process clarity, minimize operational risks, reduce costs, and ensure regulatory compliance. To learn how Interwoven’s Scrittura Solution Suite can transform your business, visit www.interwoven.com/scrittura.

About Interwoven, Inc.

Interwoven is a global leader in content management solutions.

Interwoven’s software and services enable organizations to effectively leverage content to drive business growth by improving the customer experience, increasing collaboration, and streamlining business processes in dynamic environments.

Our unique approach combines user-friendly simplicity with robust IT performance and scalability to unlock the value of content.

Today, nearly 3,900 enterprise and professional services organizations worldwide have chosen Interwoven, including: adidas, Airbus, Avaya, Cisco, DLA Piper, the Federal Reserve Bank, FedEx, HSBC, LexisNexis, Microsoft, Samsung, Shell, Samsonite, White & Case, and Yamaha. Over 18,000 developers and over 300 partners enrich and extend Interwoven’s offerings. To learn more about Interwoven, please visit www.interwoven.com

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