



SUNGARD ADAPTIV OPERATIONS

Risk Management
and Operations
Solutions

Facing the Challenge – Industry Demands

The need to improve the operational processing of derivative transactions has ensured that back office operations are facing increased examination. The International Swaps and Derivatives Association's (ISDA) Operations Benchmarking Surveys highlight that error rates remain too high and efficiency too low for comfort.

The financial services sector is innovating faster than the technology infrastructure of institutions' operational units, resulting in an increase in manual processes and exceptions. Regulatory pressures such as IAS39, FAS133 and Basel II, which is forcing institutions to allocate capital against operational risk, are adding to the operations burden.

Against this background, institutions face internal cost pressures both in terms of day-to-day business and project budgets. Operations units have typically "made do" with older systems, with investment concentrated further up the deal execution chain. Many operations managers face issues with multiple legacy systems not providing the information or flexibility required. Such systems require extensive manual workarounds, expensive and scarce development resources to provide enhancements, and can restrict product innovation in the front office.

Where product based silo systems have been implemented in the front office, the operations team is often obliged to utilise the supplied "back office" functionality as an afterthought. Operational risk increases as processes that are best applied across products (for example settlement netting) are either reduced in scope or carried out manually.

Geographically distributed processes and requirements can also lead to local divergence from the standardised flows – mass customisation – with systems struggling to cope with the additional nuances. Therefore, operations staff can spend more time fire-fighting than truly adding value.

Structured products that are bifurcated across multiple front office systems to better enable their capture and risk management add a whole new dimension and complexity to these "classical" operational challenges.



MANY OPERATIONS MANAGERS FACE ISSUES WITH MULTIPLE LEGACY SYSTEMS SIMPLY NOT PROVIDING THE INFORMATION OR FLEXIBILITY REQUIRED.

Meeting the Challenge - Proactive Operations Management in the Back Office

Adaptiv Operations builds on SunGard's strength and wealth of experience in the operations area, providing back office modules that offer organisations an unprecedented level of proactive operations management and process control from the front through to the back office. Adaptiv Operations provides consistency in trade processing, data management, control and compliance to user-defined standards.

Adaptiv Operations integrates with SunGard and non-SunGard solutions for straight-through trading, processing and operational control. In addition, Adaptiv Operations is available as a stand-alone enterprise solution. Adaptiv achieves this through a unique design that does not require a separate trade representation owned and managed within operations.

Adaptiv Operations can be applied across multiple source systems and asset classes. Its utilisation of the Extensible Markup Language (XML) ensures external systems can be easily integrated.

Controlled straight-through processing

User-configurable, centralised processing optimises efficiency, reduces errors and facilitates improved operational control. Adaptiv Operations ensures that "valid" trades are effectively managed through to their defined outputs, and automatically identifies transactions that do not meet the user-defined automatic processing standards.

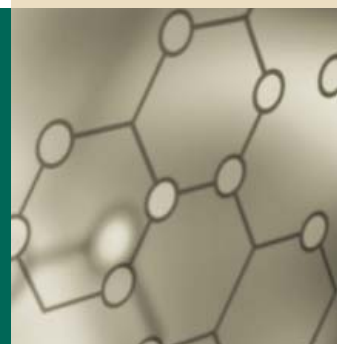
User-defined and event driven processing

The strong emphasis on user-defined business rules allows users to specify at a detailed level the required business process within the system, and provides real-time monitoring of all transactions. Business logic is captured via user-friendly rules to define the controls required to manage the straight-through processing, whilst the event driven architecture enables the definition of user specific real-time processing paths. These rules are maintained by business users rather than development resources whose availability is determined by outside factors.

Performance and scalability

Reduced operating costs and optimised resource utilisation are achieved through server components designed for high performance and linear scalability. This ensures consistent delivery whilst accommodating increasing volumes.

ADAPTIV OPERATIONS INTEGRATES WITH SUNGARD AND NON-SUNGARD SOLUTIONS FOR STRAIGHT-THROUGH TRADING, PROCESSING AND OPERATIONAL CONTROL.



Adaptiv Operations Solution Overview

Adaptiv Operations comprises a number of integrated, yet individually licensed modules covering Settlements, Documentation and General Ledger – organisations can adopt the modules required to satisfy their processing requirements.

SETTLEMENTS MODULE

The Adaptiv Settlements module is an automated netting and payment processing module that helps institutions centralise their cashflow management and automatically control multiple payments streams, utilising flexible user-defined netting rules to produce industry standard and customised payment advices.

Adaptiv Settlements provides centralised, consolidated payment processing across cashflows from multiple systems and products. Full validation, netting management and release controls enable payments to be settled without manual intervention and with reduced settlement risk.

Improve payment security

Adaptiv Settlements provides full control over the payment process, with comprehensive multi-level authorisation and approvals functionality. This ensures that only authorised payments are released on the due date and that the institution meets the required auditing standards.

Reduce credit exposure

Adaptiv Settlements utilises client defined netting rules to process the various individual cashflows into automatically netted payments. This helps to reduce both counterparty credit risk and the number of individual payments and their associated costs.

Improve payment processing

Adaptiv Settlements offers user-definable views and reports, including a quick export to Microsoft Excel feature to consolidate payment related data. Easy to use and flexible reporting tools provide full analysis of data to monitor and optimise all aspects of payment processing.

Intuitive interface

The user friendly interface provides comprehensive flexibility to display multiple views of cashflow data, netting information, processing status and the resulting payments. Quick-view filters can be easily defined, and icons associated to them.

Figure 1: Settlements administration

- Quick filters allow for the creation of queues based on user-defined criteria
- Drag and drop filters, including summing, for customisable on-line reporting exportable to Microsoft Excel.

The screenshot displays the 'Settlements Administration' window. It features a navigation pane on the left with options like 'ApplicationAdmin', 'General Ledger', 'Master Files', 'Message Manager', 'Settlements', 'Business Rules', 'Rule Definition', 'Rule Fields', 'Treatments', 'Settlements Admin', 'CashFlow Viewer', 'Approvals', and 'Documentation'. The main area shows a table of settlements with the following data:

Id	Amount	Status	SPay	SBRcv	FinalizationDt
121	\$1,829,855.70	Account	AI-CUSTOMER1:CHF:IR	AI-SG-IBU-LON:CHF:AC	03/06/2005
Grand Summaries					
	Sum = \$1,829,855.70				
- PaymentDate : 06/07/2005 (1 item) Amount Sum = -77,744.78					
125	-77,744.78	Account	AI-SG-IBU-LON:CHF:AC	AI-CUSTOMER1:CHF:IR	05/07/2005
Grand Summaries					
	Sum = -77,744.78				
- PaymentDate : 08/08/2005 (1 item) Amount Sum = -116,756.22					
127	-116,756.22	Account	AI-SG-IBU-LON:CHF:AC	AI-CUSTOMER1:CHF:IR	05/08/2005
Grand Summaries					
	Sum = -116,756.22				
- Currency : DKK (3 items) Amount Sum = -248,837,500.00					



ADAPTIV SETTLEMENTS PROVIDES FULL CONTROL OVER THE PAYMENT PROCESS, WITH COMPREHENSIVE MULTI-LEVEL AUTHORISATION AND APPROVALS FUNCTIONALITY.

Features:

- Create user-defined payment treatments and business rules to automatically assign the required settlement process to each cashflow
- User-defined netting rules including cross product netting, bilateral and multilateral payment netting schemes
- Flexible, user-defined dynamic approval schedules to control cashflow processing and settlement release procedures
- Monitor and analyse payment information, history and audit trail, in real-time
- Full auditing capability
- S.W.I.F.T. and XML payment advice support.

DOCUMENTATION MODULE

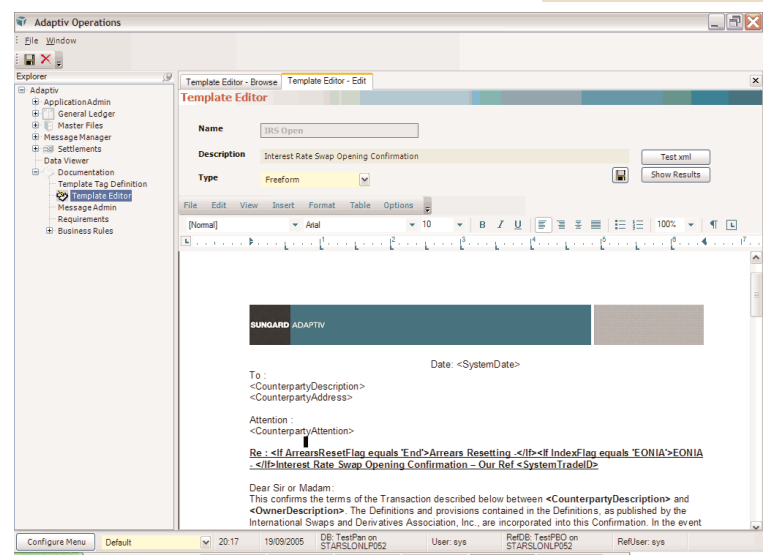
The Adaptiv Documentation module creates, manages, validates and transmits the messages required for trade support. It interfaces with financial institutions' trade processing systems and enables straight-through processing of confirmations, payments and other types of messages. The system supports a variety of message types including S.W.I.F.T., free format and XML, and can transmit these messages to a variety of distribution devices and interfaces including printers, S.W.I.F.T., e-mail and fax.

Enhance operational efficiency

Many financial institutions still have a dependency on manual intervention to manage their confirmation processing. Adaptiv Documentation can be integrated with any trade processing system to provide straight-through message processing based on user-defined business rules. It can significantly reduce the time and cost associated with processing confirmations and payments, thus enhancing an institution's operational efficiency.

Centralise message control

Financial institutions often have a number of



trading or payment systems that typically do not have a central message mechanism to receive, manage and transmit messages. Adaptiv Documentation enables an institution to integrate multiple trading systems for centralised processing, enabling more effective message management and control. User-defined exception rules, approvals and annotation through the management process allow for better control of workflows, thus reducing human error and exposure to operational risks.

Comprehensive auditing capabilities

The consolidation and processing enhancements provided by Adaptiv Documentation are fully supported by comprehensive audit trails and full message archiving. This simplifies the monitoring and control requirements, and ensures compliance with both internal and external auditing requirements.

Features:

- Ergonomic, user-friendly template design based on Microsoft Word supports functions such as bolds, fonts, colours, tables and also

Figure 2:
Documentation template editor

- Word-based template editor
- Ability to add company logos and signature files
- Logic statements to include/exclude information based on user-defined rules
- Test function to ensure accuracy of document output.

ADAPTIV DOCUMENTATION CAN SIGNIFICANTLY REDUCE THE TIME AND COST ASSOCIATED WITH PROCESSING CONFIRMATIONS AND PAYMENTS, THUS ENHANCING AN INSTITUTION'S OPERATIONAL EFFICIENCY.



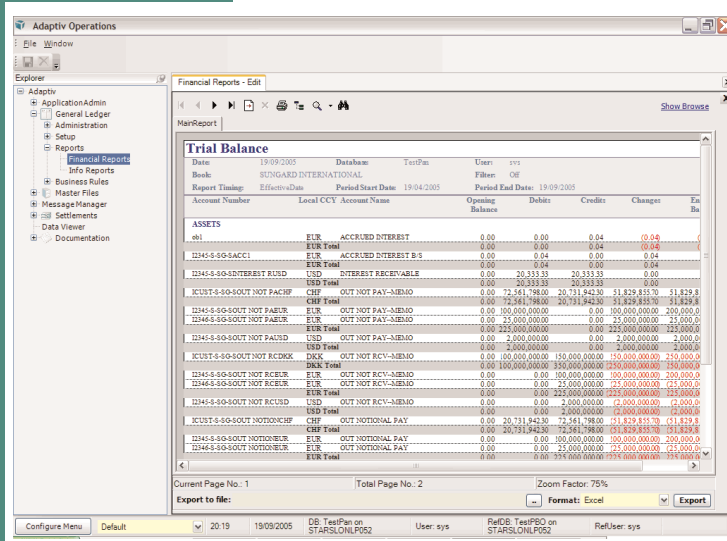


Figure 3 - General Ledger financial reports

- Full set of financial reports including trial balance, income statement and balance sheet
- Reports can be filtered by business criteria and output in a variety of formats.

allows the addition of bitmaps to provide logos for headed paper and electronic signatures

- Support of if/then logic allows the user to build complex statements to include/exclude text based on trade or static data
- Two-byte character sets are supported to provide local language confirmations, for example Mandarin, Arabic and Cyrillic script
- Documents can be produced and stored in a variety of file formats including RTF, DOC, PDF, HTML and XML
- Support of SWIFTNet Accord matching and SunGard intelliMATCH inbound matching status messages
- Available with a library of ISDA standard templates
- S.W.I.F.T. message support.

GENERAL LEDGER MODULE

The Adaptiv General Ledger module is a sub-ledger application that allows an institution to generate, maintain and consolidate all journal entries for the trading operations of multiple financial organisations. It provides real-time, simultaneous, multi-currency coverage across multiple legal entities and accounting books,

using the most widely used accounting methodologies.

Real-time, user-defined event driven processing

Real-time posting to the main ledger(s) of all user-defined trade events, including banks' and customers' settlement accounts.

Centralised processing

Reduce operational costs and errors by maintaining all general ledger requirements, from multiple sources, within a single environment.

Flexible management reporting

Extensive user-definable reporting, including trial balance reporting functionality supported at ledger level through to single trade level. Reports can be easily exported into other applications (for example Microsoft Excel, HTML).

Features:

- Create user-defined accounting treatments and business rules to automatically assign the required accounting process
- Real-time generation of lifecycle accounting events to minimise the traditional end of day batch processing overhead
- Flexible structure and design to support multiple international accounting standards, for example FAS133/IAS39, plus product/regional specific functions as required
- View accounting entries, history and audit trail in real-time
- Security and authorisation levels for all general ledger functions
- Full auditing capability
- User configurable screens supporting the analysis and reporting of all accounting data
- The scalability of the solution ensures that operating performance is maintained across large trading ledgers.



ADAPTIV GENERAL LEDGER IS A SUB-LEDGER APPLICATION THAT ALLOWS AN INSTITUTION TO GENERATE, MAINTAIN AND CONSOLIDATE ALL JOURNAL ENTRIES FOR THE TRADING OPERATIONS OF MULTIPLE FINANCIAL ORGANISATIONS.

Trade Administration for Trade Lifecycle Event Processing

Complementing Adaptiv Operations, the Adaptiv Trade Administration module provides centralised, consolidated trade lifecycle event processing across multiple asset classes, thus enhancing operational efficiency.

Adaptiv Trade Administration enables standard trades to be processed without manual intervention, whilst also providing user-defined exception management for specific trades, along with a full transaction audit trail.

By utilising not only a single database, but also common user screen layouts and usage techniques, Adaptiv Trade Administration enables users to adopt the most effective solution to meet their processing needs. This allows flexibility in their selection of key processing features: responsibility (who), location (where), segregation (control).

Adaptiv Trade Administration shares a common platform with Adaptiv Operations' processing modules whilst also supporting integration with external back office systems.

Eliminate reconciliations

The single trade record eliminates the traditional front office / back office reconciliation processes.

Ensure data integrity

All lifecycle processing updates the single trade record in real-time, ensuring that users have a common view of all trades at all times.

Monitor queues through intuitive dashboard

Adaptiv Trade Administration utilises a dashboard for the monitoring of queues, based on trade selection rules. Users can explode from this central function into the individual functions required to clear the queue. Managers can view the whole operation from one function, monitoring bottlenecks and helping to reduce operational risk.

Features:

- User-defined input validation and exception processing
- Ability to add user comments at points in the workflow such as trade approval, rejection and void. These are recorded against the appropriate action in the audit trail allowing greater transparency for investigations
- Activity monitoring with full audit trail and reporting capabilities
- Real-time and batch processing
- Support for correction processing through the trade comparison function. This identifies the differences between the pre- and post-amendment versions of the trade. The user can then accept or reject the change
- Support for customised extensions to create user specific processing functionality and automation.

Summary

Financial institutions, driven by increasing volumes and complexity of instruments, regulatory demands and ageing systems, are being forced to address inefficiencies in their operations processes. SunGard can help meet these challenges by providing a solution that addresses both current and future processing requirements.

ADAPTIV TRADE ADMINISTRATION SHARES A COMMON PLATFORM WITH ADAPTIV OPERATIONS' PROCESSING MODULES WHILST ALSO SUPPORTING INTEGRATION WITH EXTERNAL BACK OFFICE SYSTEMS.



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