

# Syn~Settlements

**Syn~Settlements** is a modern, highly scalable, process-driven back office transaction processing settlement engine facilitating high levels of STP in Global Capital Markets.

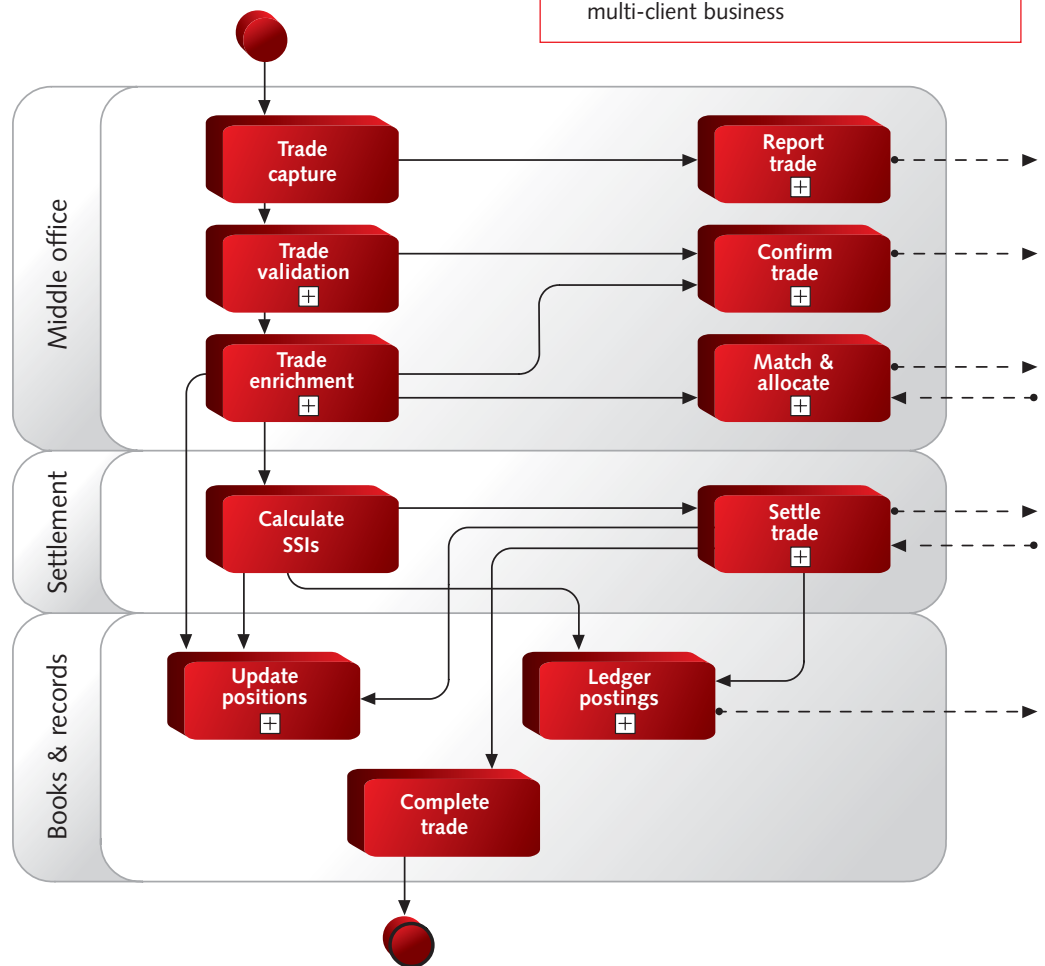
## Making operations more efficient

Process automation is at the heart of the **Syn~Settlements**' engine and therefore a goal of a **Syn~** implementation is to radically reduce the human involvement needed in processing a given transaction. This in itself will facilitate high STP rates.

However, further reduction in operational costs requires an automated approach to dealing with the exceptions, that arise from trades, which cannot be automatically processed. The unique **Syn~** approach to exception routing and handling ensures the correct and rapid repair of transactions to keep operational activities as efficient as possible.

## Benefits

- ~ Very high STP rates using automated interfaces and integrated real-time workflow and monitoring
- ~ Flexible rules-driven lifecycles allowing complex operational structures to be modelled graphically
- ~ Easily extensible business objects and lifecycles supporting changing business for volatile markets, products or client services
- ~ Support for true 24x7 global operations using scaleable processing and contemporaneous end-of-day by geographical or business regions
- ~ Use of open standards such as XML and JMS for communication with internal and external systems
- ~ Designed to support in-sourced multi-client business



Example trade lifecycle

## Business rules users can understand

An organisation can enhance the existing best practice templates by means of business rules in a natural, easy to use language. Details of processes to be automated are captured as graphical charts that can be understood by operational staff. These advances ensure that business knowledge is preserved over time in a self-documenting manner and end-users can be involved with the definition and on-going change and maintenance of the system.

## Syn-Settlements business functionality

**Syn-Settlements** is product and business neutral, supporting the widest range of operational activities within a financial institution.

## Product Types

- ↪ Fixed income
  - ↪ Eurobonds
  - ↪ Sovereign debt (e.g. UK Gilts, BTANs, U.S. Treasuries)
  - ↪ Corporate bonds
  - ↪ Zero-coupon bonds
  - ↪ Floating rate notes (including mismatches)
  - ↪ Emerging markets
  - ↪ Convertibles
- ↪ Equities
  - ↪ International
  - ↪ Multi-exchange listed
  - ↪ ADRs/GDRs
  - ↪ Warrants
- ↪ Currencies
- ↪ Money markets
  - ↪ FX (Spot and Forward)
  - ↪ CDs
  - ↪ Commercial paper
  - ↪ Treasury bills and notes
  - ↪ Loans and deposits
- ↪ Derivatives
  - ↪ Futures
  - ↪ Options
  - ↪ Swaps

## Transaction types

- ↪ Principal (including riskless back-to-back)
- ↪ Agency (including agency cross)
- ↪ Repos (including open, term, buy/sell-back)
- ↪ Borrow/lends
- ↪ FX
- ↪ Loan/deposits
- ↪ Custody transactions
- ↪ Journal transactions
  - ↪ Depot/nostro transfers
  - ↪ Book transfers
  - ↪ Take-ons

## Trade capture and validation

- ↪ Incoming message parsing
- ↪ Full trade amend/cancel logic
- ↪ Reference data checking (e.g. instruments, parties, currencies, markets etc.)
- ↪ Date checks
- ↪ Value checks (including charge or interest recalculations)
- ↪ Complex multi-field validations (in user-defined rules)

## Trade enrichment

- ↪ Rule-based enrichments defined by users
- ↪ Date calculations (e.g. multiple market value date)
- ↪ Value calculations (e.g. accrued interest, fees and charges, net consideration)
- ↪ SSI calculations using best-match algorithms
  - ↪ Configured parameters including product types, market, currencies, transaction types, legal entity, and counterparty etc.
  - ↪ Rule-based exceptions
- ↪ Exception driven throughout

## Confirmations

- ↪ Real-time confirmation generation
- ↪ Multiple confirms/contract notes by:
  - ↪ Interested parties
  - ↪ Addresses
  - ↪ Languages
  - ↪ Templates
- ↪ User-defined data generated in an XML stream
- ↪ Support for SWIFT, telex/fax, e-mail and printing
- ↪ Full ACK/NACK processing

## Trade matching and allocations

- ↪ Trade reporting messages automatically generated e.g. TRAX
- ↪ ACK/NACK response tracking
- ↪ MATCH status response
- ↪ Automatic allocation processing e.g. OASYS

## Position management

- ↪ Real-time
- ↪ Securities and cash
- ↪ Owner versus location (e.g. book, client, depot, nostro)
- ↪ Custody positions (including statements)
- ↪ Trade-dated and value-dated i.e. current and projected positions
- ↪ Forward ladders
- ↪ Actual settled positions (for reconciliation)
- ↪ Backdated positions as at any date and time
- ↪ Open items
- ↪ Multiple concurrent aggregation structures
- ↪ User-defined sub-positions (e.g. repo, reverse repo, borrowed, lent, collateral)

## Profit and loss

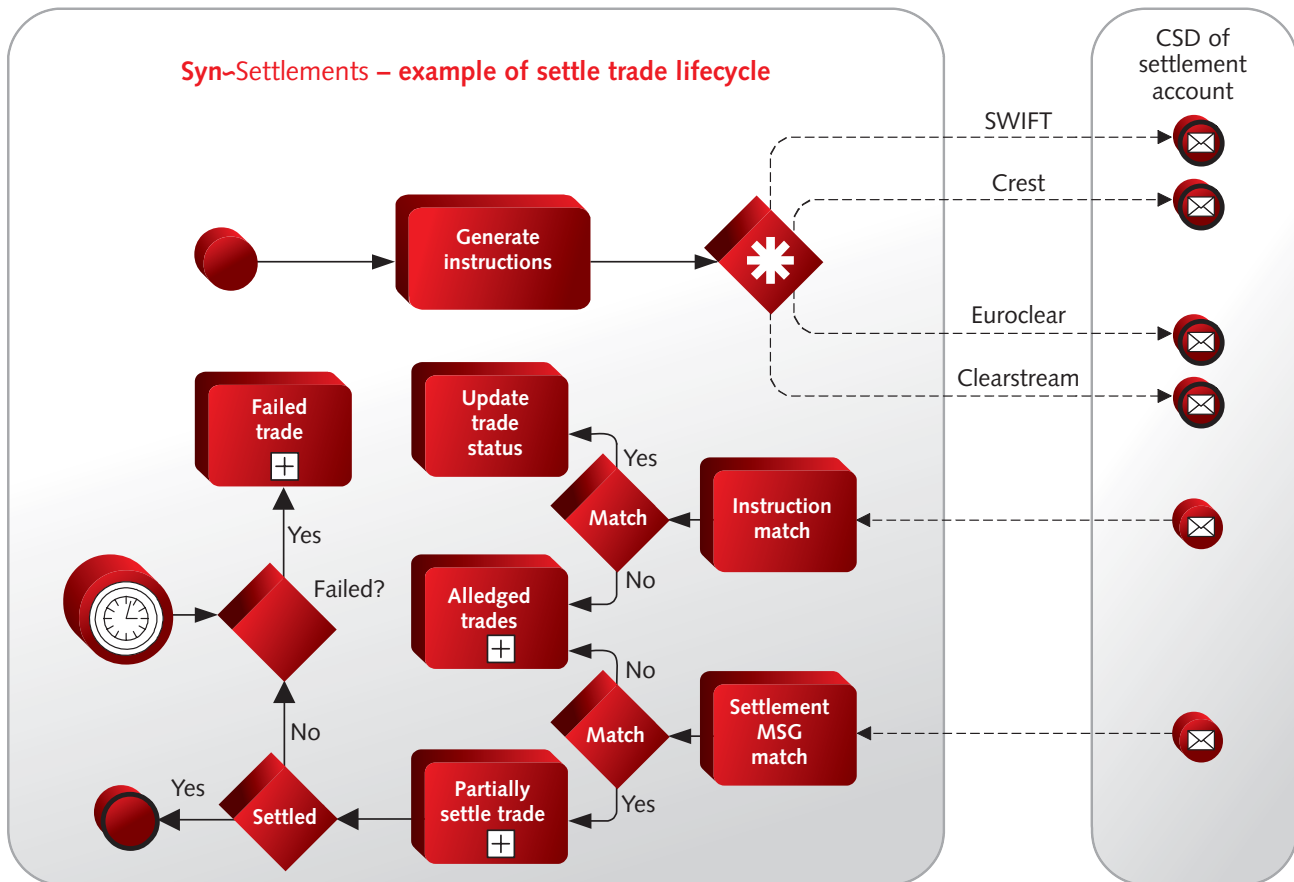
- ↪ Real-time
- ↪ Realised and unrealised
- ↪ Mark to market
- ↪ 19 different profit calculations, including:
  - ↪ Trade and value dated
  - ↪ AVCO (clean, dirty etc)
  - ↪ FIFO
  - ↪ LIFO
  - ↪ HIFO
  - ↪ Matched
- ↪ Amortisation and accretion
  - ↪ Linear
  - ↪ Simple and compound yield
  - ↪ Normalised unit discount

## Settlement instructions and matching

- ↪ Real-time calculation and generation of settlement instructions
- ↪ Multiple instructions from one transaction
- ↪ Full DVP and FOP instructions for securities and cash
- ↪ Transfer instructions for securities and cash
- ↪ Automatic instruction splitting (e.g. for U.S. Treasuries)
- ↪ Instructions to:
  - ↪ SWIFT
  - ↪ Crest
  - ↪ Euroclear
- ↪ Full ACK/NACK processing including exception generation
- ↪ Timeliness monitoring for settlement match i.e. for depot deadlines
- ↪ Appended returned match status with code translations

## Settlement

- ↪ Automatic and manual settlement
- ↪ Settlement splitting and netting
- ↪ Partial and full settlement capture
- ↪ Settlement validation
- ↪ Upon receipt logic
- ↪ Fail trade exception processing
- ↪ Write-off processing



## Ledger Postings

- ~ Full multi-entity accounts posting from
  - ~ Transactions
  - ~ Settlements
  - ~ Mark to market
  - ~ Accruals
  - ~ Accretion/amortisation
- ~ Real-time or batch generation
- ~ Balanced debit/credit journals or events
- ~ Multiple parallel ledgers each with differing base currencies and calendars
- ~ Flexible period open/close for back-dated adjustments and reworks

## Corporate Actions

- ~ Generic structure
- ~ Entitlement capture
- ~ Proprietary & client positions
- ~ Repos & fails processing
- ~ Claims processing

### London

**Coexis Limited**  
 Victoria House  
 Second Floor  
 64 Paul Street  
 London EC2A 4NG  
 Tel: +44 (0) 20 7613 8800  
 Fax: +44 (0) 20 7033 1965

### New York

**Coexis Inc**  
 75 Broad Street  
 New York  
 NY 10004  
 USA  
 Tel: +1 646 649 9380  
 Fax: +1 646 649 9381  
 www.syn.com  
 Email: syn@coexis.com

### Partner

**Serisys Solutions Ltd**  
 1201 Jubilee Centre  
 18 Fenwick Street  
 Wanchai  
 Hong Kong  
 Tel: +852 (2376) 3232  
 Fax: +852 (2376) 3030  
 www.serisys.com