

GAIN Data Management Use Case

GAIN Golden Copy as Central Pricing Solution for Clearstream

Josef Sommeregger | Business Development and Sales

Clearstream International, one of the leading custodians in Europe with more than one million securities under management, has implemented GAIN Golden Copy as a central pricing hub to increase the pricing coverage, price timeliness and price quality. GAIN is used to streamline the processing of data from 10+ internal and external sources based on an extensive rule framework.

- GAIN as pricing master
- Integration of 10+ pricing sources
- Daily pricing of more than one million securities
- Dynamic selection and validation rules
- Seamless IT integration

GAIN for extended pricing coverage and quality

Clearstream International, the International Central Securities Depository (ICSD) part of Deutsche Börse Group, ensures that cash and securities are promptly and effectively delivered between trading parties. It also manages, safekeeps and administers the securities that it holds on behalf of its customers.

Due to the high market volatility and the need to enhance the risk management, it became necessary for Clearstream to increase the pricing coverage, pricing timeliness and quality with a central data management solution that could be seamlessly and swiftly integrated into the existing IT environment.

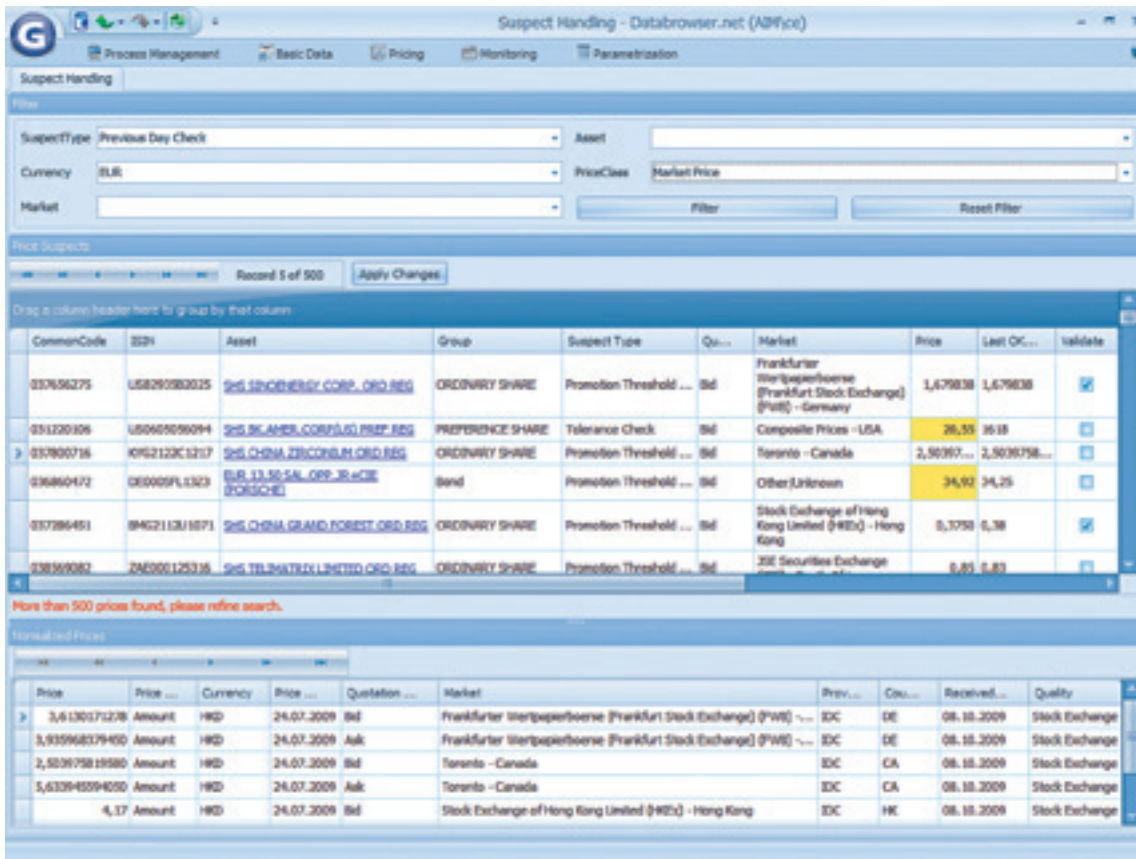
GAIN covers the customer's needs

Clearstream's decision in favour of AIM Software's Golden Copy solution followed a comparative analysis of proven data management suites on the market. The

decision to pursue the project with AIM Software was taken for a number of reasons:

Strong connectivity of GAIN: Prompted by the effects of the financial crisis, Clearstream saw the need to increase the pricing coverage by improving the analysis of its pricing data coming from 10+ internal and external sources. With its connectivity to 15+ commercial data feeds on the one hand and the flexible import architecture for standard formats on the other, GAIN is able to cover Clearstream's existing and future requirements. By drawing upon flexible request mechanisms driven by business rules, the coverage of market prices for Clearstream's vast portfolio was considerably increased.

Strong rule framework of GAIN: Building on GAIN's rule framework with flexible ranking functionalities, Clearstream was able to implement a comprehensive logic related to the selection and validation of instru-



The GAIN price exception GUI gives a clear overview over exceptions and enables an easy processing of data

ment prices. The pricing logic implemented on the basis of the GAIN Rule Engine, features an improved price source classification based on dynamic rules.

Seamless integration into Clearstream's IT environment: One of the decisive factors influencing the decision for GAIN was the ability to seamlessly integrate GAIN Golden Copy into the existing IT architecture. GAIN was completely embedded into existing IT processes, which greatly facilitates the operations of the system within Clearstream.

Fast implementation: Based on the extensive model parameterization proposed by AIM Software, the implementation time for the solution was considerably reduced. The entire pricing master integration was realized in only 7 months – one of the shortest integration periods for such a project in Europe. This rapid deployment became possible by utilizing standard sets of mappings, workflows and rules as well as predefined processes derived from the know-how of AIM Software's previous implementations.

Transparency of the platform: The entire business logic created for Clearstream was implemented in GAIN's Configuration Central module which allows for the creation of rules, mappings and workflows in a graphical power user GUI. The transparent and easy definition of the busi-

"We were looking for a proven pricing master with comprehensive business logic and a connectivity to a wide range of data feeds. The state of the art GAIN Golden Copy platform meets our current needs and gives us the flexibility we need for the future."

Jean-Marie Piquard, Clearstream

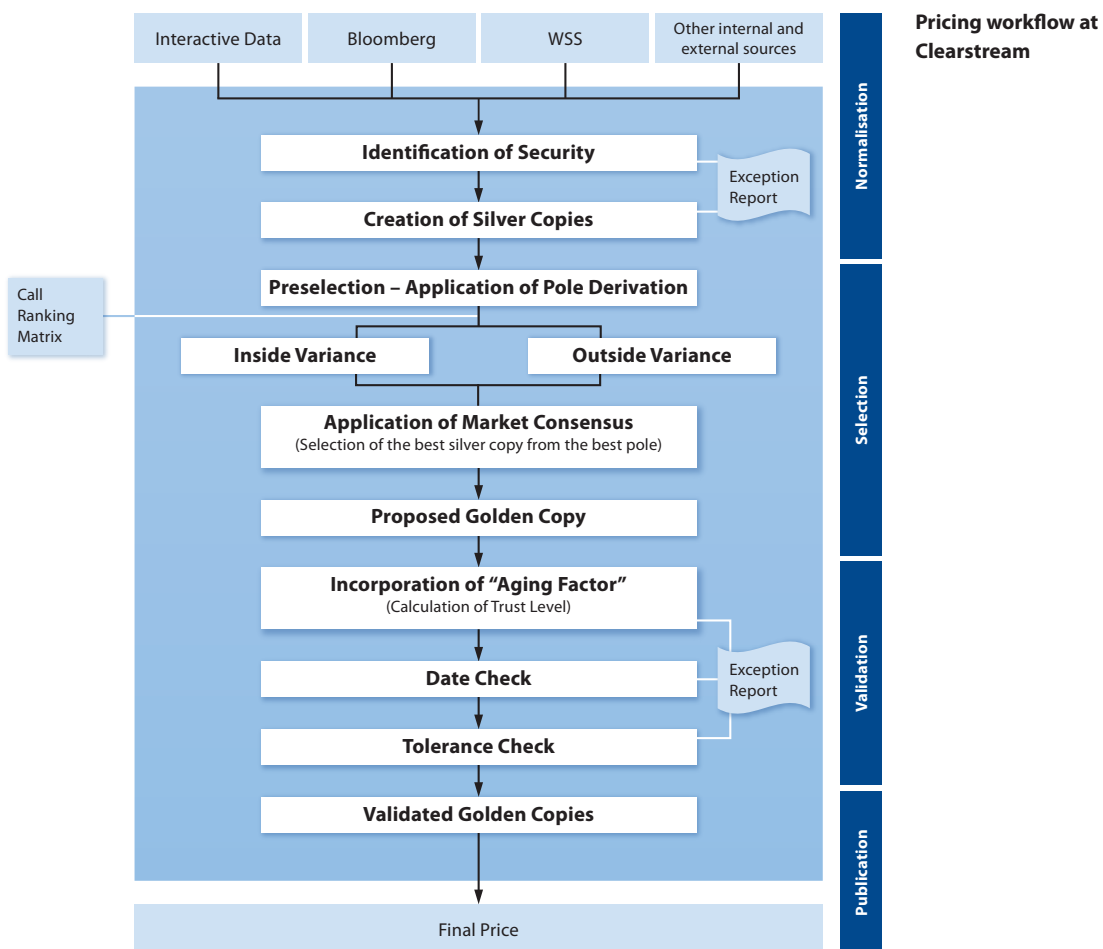
ness logic will allow Clearstream to be independent in the maintenance and extension of the logic in accordance with future needs.

GAIN: Broad range of functionalities

GAIN Golden Copy covers the whole pricing workflow from the selection to the validation of prices and the delivery to target systems. Clearstream draws upon the workflow facilities in GAIN to increase the degree of automation of all pricing processes.

More specifically, GAIN Golden Copy is used for the execution of the following tasks:

- Request | Download of pricing data | Metadata management
- Normalization | Data mapping | Data enrichment
- Selection of the best prices as per Clearstream ranking
- Exception handling | Validation
- Workflow management | Task Scheduling
- Export into the internal target system
- KPI monitoring



Fine tuned pricing workflow

The GAIN pricing workflow customized for Clearstream mainly consists of three different phases: Price normalization, price pre-selection and price validation.

Price normalization: During the price normalization, raw data is retrieved from the different data sources and checked on the basis of local and market instrument codes to identify the security in the client's portfolio. In the course of this process, parameters like provider origin, data source and quality factors are derived for all instruments and are then converted into the respective internal target formats. At the end, all normalized data is stored in the GAIN Silver Copy which is a normalized pre-stage to the Golden Copy.

Price pre-selection: In the pre-selection stage, the normalized data of the silver copy is processed on the basis of ranking matrices assigning quality weights to the prices provided by the different vendors. The concept of this weighting process is also extended by a dynamic component which accounts for the age of the price in addition to factors like the data source.

Price validation: The selected silver copy price in turn undergoes a validation step in which trust levels calculated by the system determine whether the new price will be accepted or not.

At the end of the workflow, GAIN provides fully normalized, cleansed and validated price data ready for further usage in Clearstream's internal systems.

Strong and flexible rule framework

Based on the strong rule framework of GAIN, Clearstream was able to achieve a higher STP rate. The business logic at Clearstream comprises rules for an enhanced exception management process featuring an improved 4-eyes workflow. Moreover, the solution provides Clearstream with an extensive audit trail for changes and a complete price history. The transparent tools inherent in GAIN enable the client to alter or amend the rules as necessary.

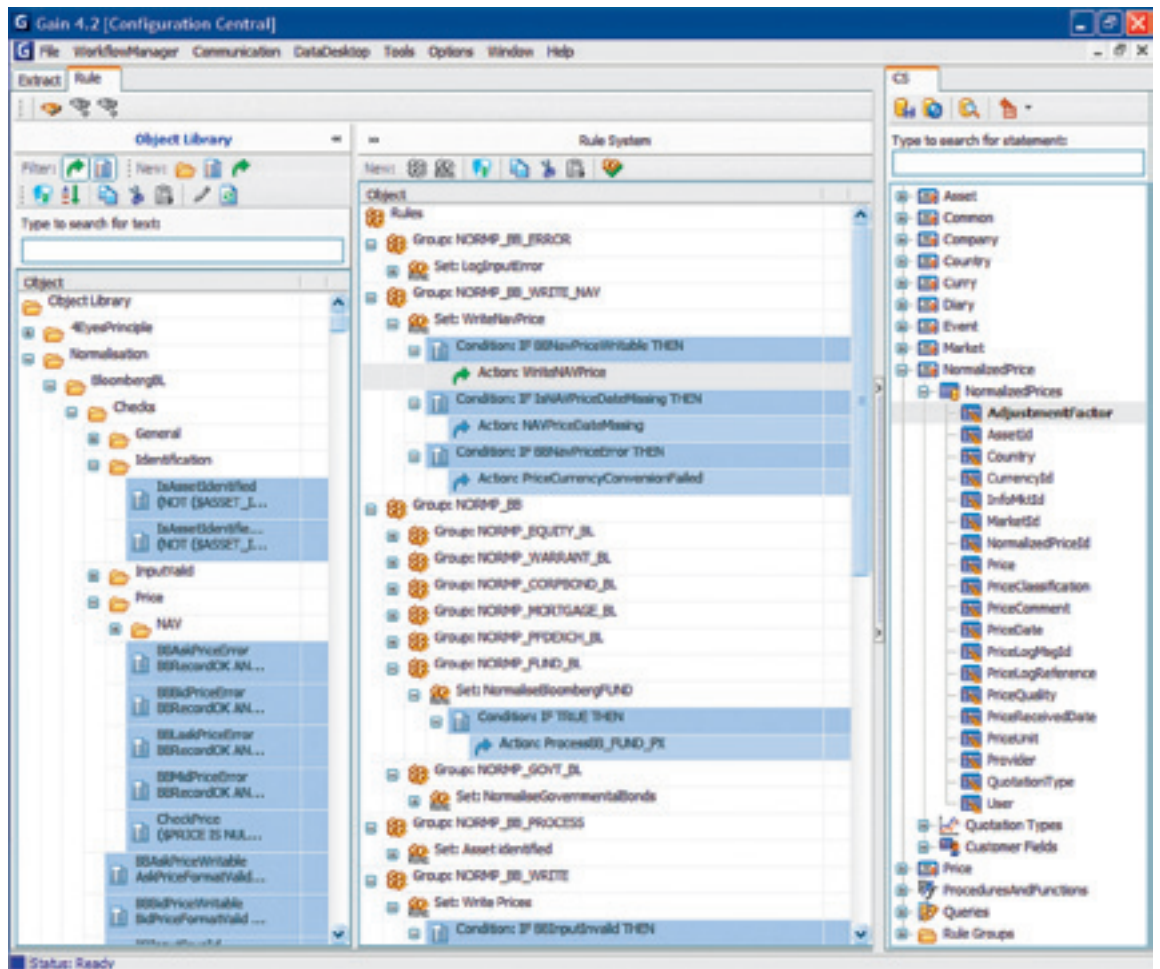
Some of the customer specific rules include:

- Introduction of a 'dynamic weighting' concept to include the aging factor in the price quality derivation
- Implementation of a 'dynamic publication' concept featuring a dynamic tolerance margin calculation as well as the incorporation of a dynamically calculated trust level

Extended exception handling

Since Clearstream relies on a large number of data sources, all data needs to be cleansed and converted into the correct format prior to export into the internal target system. GAIN Golden Copy additionally takes care that all imported data is checked prior to export.

Business logic can be flexibly defined and extended by using the graphical GAIN Rule Engine



A further increase in data quality is achieved through additional data checks. Whenever exceptions occur, an intuitive end user interface provides a view on the data flagged as suspect or where the client stipulated that data has to be checked manually against prices e.g. taken from terminal products. The automatic integration of data into Clearstream's system enables the collateral and portfolio evaluation before the start of a client's business day.

Outlook on the future

AIM Software puts a strong emphasis on maintaining strong partnerships with its customers. All experience obtained from implementation projects is fed back to the entire customer pool, which helps banks and other financial institutions to save costs and to reduce the overall implementation effort of enterprise wide data management solutions. ■

About Clearstream International

www.clearstream.com

Clearstream is a global supplier of post trade services serving 2.500 customers in 100 countries. It has over €10 trillion in assets under custody.

It is both an International Central Securities Depository (ICSD) based in Luxembourg and a Central Securities Depository (CSD) in Germany.

Contact | Clearstream

JEAN MARIE PIQUARD
Head of Custody and Reference Data Products
42 Avenue J. F. Kennedy
1855 Luxembourg
T: +352 243 35476
jean-marie.piquard@clearstream.com
www.clearstream.com

Contact | AIM Software

JOSEF SOMMEREGGER
Head of Business Development and Sales
4b, rue Henri Schnadt
2350 Luxembourg
T: +352 2664 7454
josef.sommeregger@aimssoftware.com
www.aimssoftware.com