EN


# CFIDB
# Valuation Price Processing

FBA
FINANCIAL BUSINESS APPLICATIONS

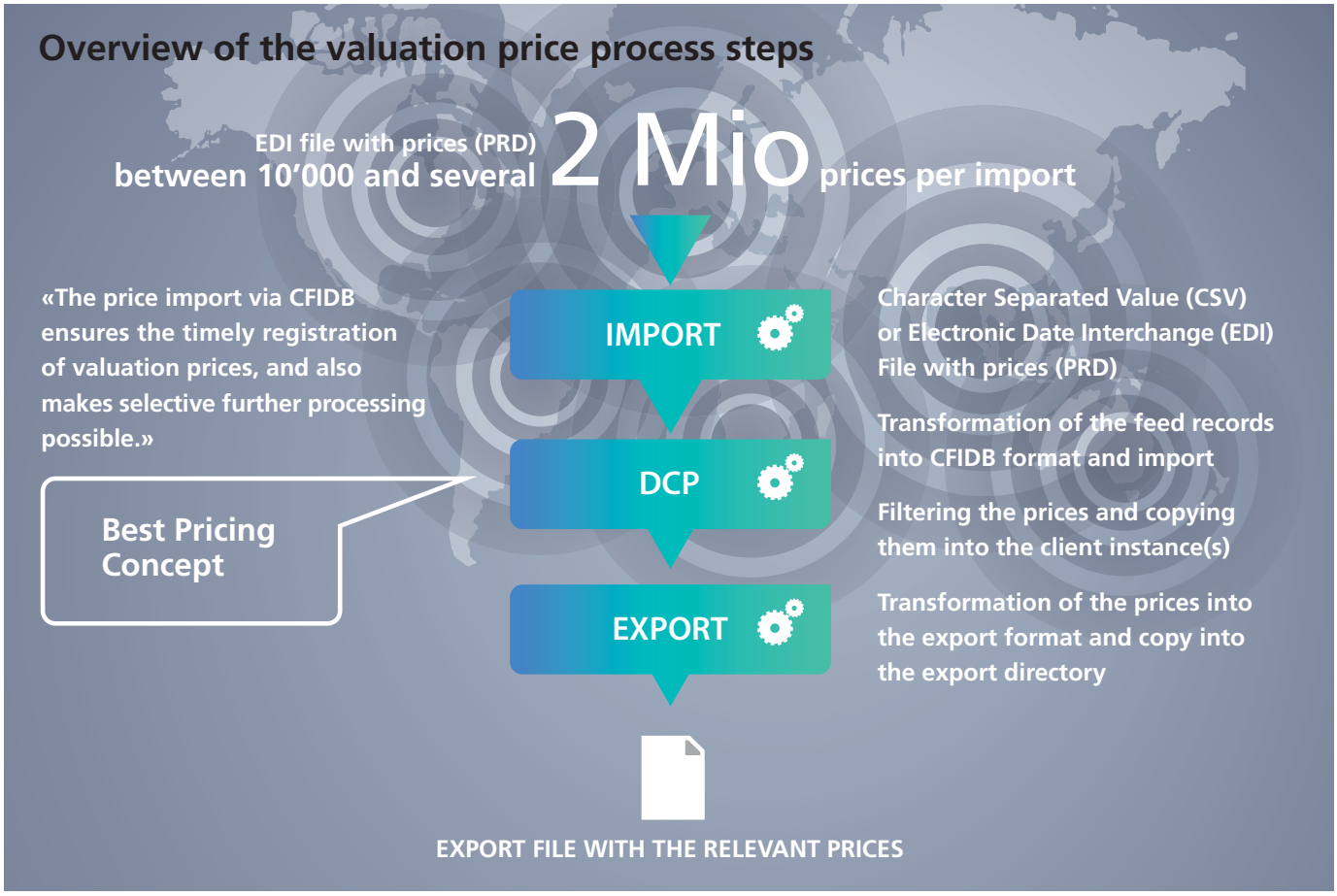
# Financial information on a secure basis

**«The CFIDB (Consolidated Financial Instruments Data Base) makes it possible for you to integrate, combine, process and evaluate financial information from different data providers in summarized form.“»**

## CFIDB – the IT platform for the integration of data from all over the world.

The flagship product of FBA AG is the CFIDB (Consolidated Financial Instruments Data Base), a platform that makes it possible to integrate financial data from different data providers.
Data from a single supplier can be entered, or data from several suppliers can be combined.

This platform also allows internal instruments to be opened and maintained by means of predefined rules for each instrument type, sub-type and region (OTC products, etc.).
The comprehensive data model that this product is based on maintains static and event data, as well as snap shot and valuation prices.



## Solid import of prices for reliable information processes.

**Valuation prices (Real-time Snapshots and EOD-prices)**

The process chain to import and establish valuation prices efficiently and on time is one of the main features of the CFIDB system. As the price processing is mission critical for most of our clients, the whole chain of processes to import and establish the valuation prices has been designed and built in a very robust manner, including alerts to support personnel in case of problems. In addition various models that implement a fall back scenario are supported (e.g. if a data supplier delays the delivery of data or fails to deliver at all). The delivery of the valuation prices is unique to each data supplier and the changes brought in by these vendors require an ongoing maintenance of the software and a speedy reaction time to handle cases like new or merged exchanges, new price types etc.
Example: The valuation prices from SIX Financial Information are prepared and delivered several times during the day. There are 6 files delivered during a business day and one additional file on weekends.

**The valuation price import normalizes the data and:**

- transforms the prices into the internal CFIDB format
- filters the non relevant prices
- selects the prices by their priority
- passes them on in the desired format and at the time(s) specified by the client to the target system(s)
- logs the above process steps including the decision criteria, detailing as to why a price was selected as the valuation price

**Key features**

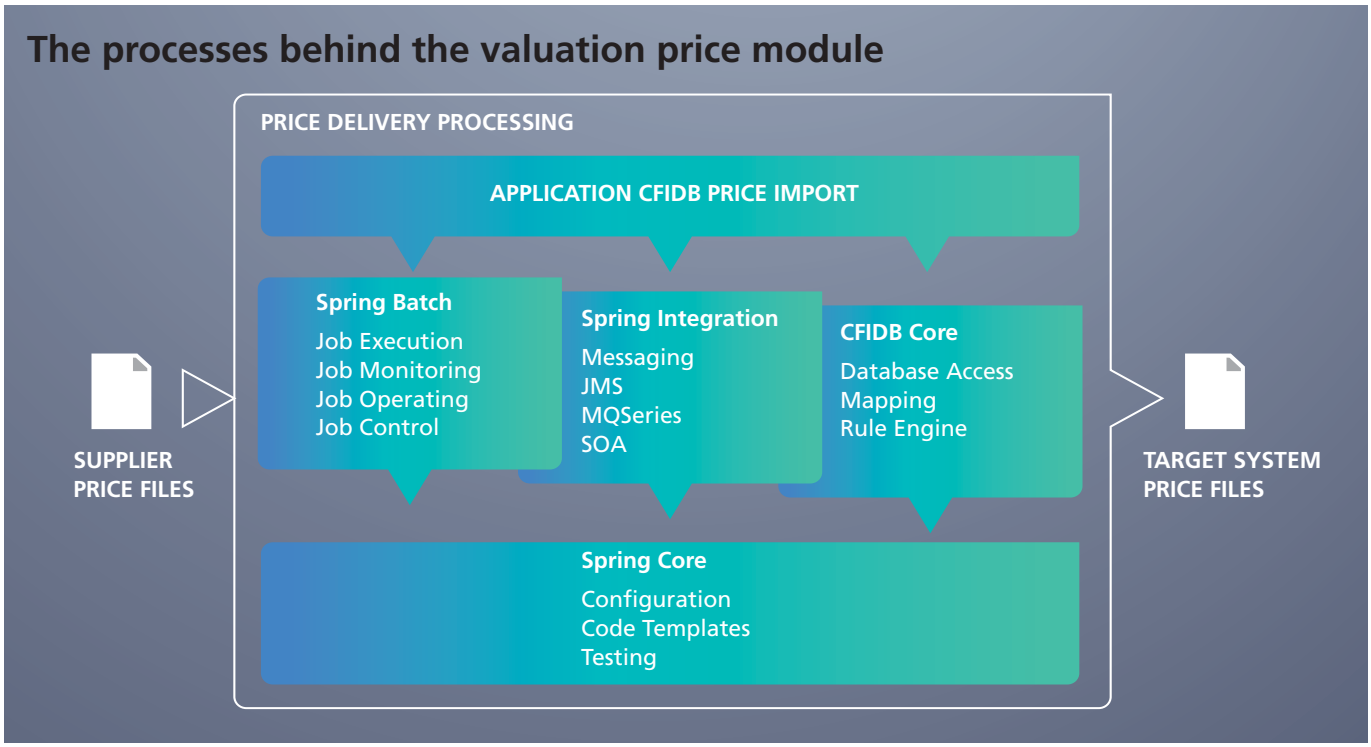
- flexible: all process steps are defined externally (parameter table)
- top performance: as an example 2,5 Mio price updates contained in a delivery are processed within 15 minutes
- multi addressing capabilities: multiple clients and their sub clients or systems can be defined and receive their valuation prices from the same process chain
- the software is highly modularized and standardized. This makes the addition of further price feeds simpler.
- traceability, as to why a price was selected as the valuation price for an financial instrument (log)
- valuation prices can be produced as real-time snapshots or as «official» valuation prices in the end of day, end of month or end of year processing
- prices provided by various suppliers can be integrated in the valuation price production
- various backup models can be defined and implemented

**Process steps**

- Mapping of the input data (e.g. from SIX Financial Information: PRD DOCs) to CFIDB price records
- Filtering of non relevant data
- Import of the CFIDB price records into the CFIDB Input table
- Selection of the 'best' price as per the clients best pricing concept or an FBA standard concept
- Copying of the valuation prices for each defined client, sub client or system into the output table(s)
- Export of the valuation prices into the export table(s)
- Export into the format required by the target system(s), e.g flat files

Only the latest prices per price type, exchange and currency are contained in the «actual» price table. Historical prices are kept and maintained in a history table.

**«As a flexible, high performance and fully multi-client information program, it imports, filters, selects and exports CFIDB financial data on the basis of individually predefined parameters.»**




## Technical implementation

**Data Base**

For an efficient and fast processing of the valuation price candidates, following has been implemented:

- the prices, which can be processed together are stored physically in as few blocks as possible
- all necessary data is read only once and as efficiently as possible
- all changes are written within a single process «Batch Insert» and one process «Batch Update»

**Software**

Beside the very modularized software and the high-performante data base access concept, highly reliable batch programs that perform their daily duties without failure, are in place. These include logging, a robust error handling, statistics for the various processes and a simple start/restart concept. In the recent years, a framework was developed, which fulfills all these requirements via the Spring Batch Framework, an extension of Spring Frameworks, a state-of-the-art technology combined with decades of experience in developing batch applications.

All batch jobs in the CFIDB-system, in particular the valuation price processing, are implemented as Spring Batch modules. The code to manage and trigger processes is done mainly by this framework. The CFIDB-specific code contains the business logic. In these modules the functions to read, transform and write data is implemented.

**Filter types**

Amongst other parameters, which can be externally set, the following filter types can be used:

- Zero amount: Filters prices with value 0
- Relevant Instrument: Selects prices for various clients, sub clients or systems for their relevant financial instruments
- Relevant Listing: Selects prices for a financial instrument at one or more exchanges selected by a client, sub client or system
- Price Type: Filters prices by price type, price subtype and exchange. The filter is defined in a simple ASCII file: per line one filter criteria. Lines are nested with logical «or» and «and» definitions


FBA AG Financial Business Applications, Beethovenstrasse 9/11, 8002 Zürich, Switzerland, T +41 44 280 21 81, fba-ag.ch, info@fba-ag.ch

**Zürich**
FBA AG
Beethovenstrasse 9/11
8002 Zürich
Schweiz
T +41 44 280 21 81

**Weinfelden**
FBA AG
Sangenstrasse 3A
8570 Weinfelden
Schweiz
T +41 71 622 75 25

**Südafrika**
FBA Pty Südafrika (Repräsentanz)
2nd Floor
Nelson Mandela Square
Maude Street
Sandown 2196
South Africa
T +27 11 881 5774

**fba-ag.ch**
**info@fba-ag.ch**

FBA
FINANCIAL BUSINESS APPLICATIONS