



Various Integration Accelerator 3.0



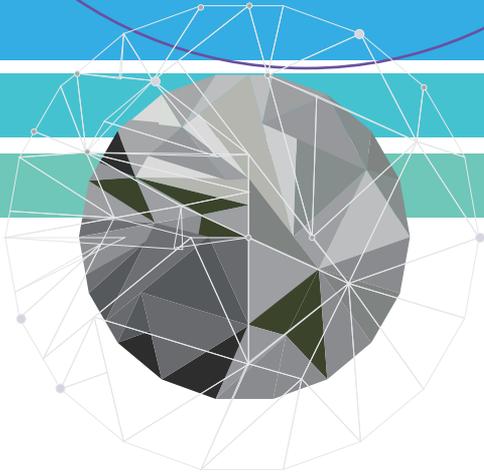
CONNECTING DATA
SOURCE TO DESTINATION

STREAMING DATA PIPELINE | DATA MAPPING | SYSTEM & DATA MONITORING

MAY 2017

VIA

Connecting
Data
Without
Limits



Introduction: VIA

New areas of business operation emerge through the advancement in technology and by enforcement of new regulations, which financial institutions must adopt and comply with a tight agenda. However, financial institutions are faced with a challenge when dealing with data sources that are overly complicated and entangled.

The main problem is due to 'no ownership' of these data and clients have to figure out how to facilitate these data from the source to the destination (data warehouse etc.). Also, a large chunk of development efforts is wasted in developing data stream over and over again. Lastly, business operation is consistently under risk, because institutions do not have enough budgets for overpriced monitoring solutions after having spent hundreds to millions of dollars on an individual system.

VIA alleviates these challenges by providing a flexible platform, which ensures scalability and stability of a business operation. We provide various functionalities from interfacing to data conversion. Also, the user can integrate business logic into these data source before sending it the backend system. Moreover, individual application or solution can be equipped with the batch scheduler and monitoring tool at lower cost, which can make them a more powerful application. We can simplify your complicated problems with VIA.

FAST INTEGRATION

EXTEND SCALABILITY

STABLE OPERATION

Why VIA

- 1** VIA breaks traditional financial market by simplifying various sources to multiple destinations.
- 2** VIA ultimately improves a client's integration experiences by unifying multiple connections into one platform, which evolves as clients grow with VIA.
- 3** VIA utilizes a common data model, which accelerates a client's time to market

70%

Cost reduction

65%

Development time reduction

100%

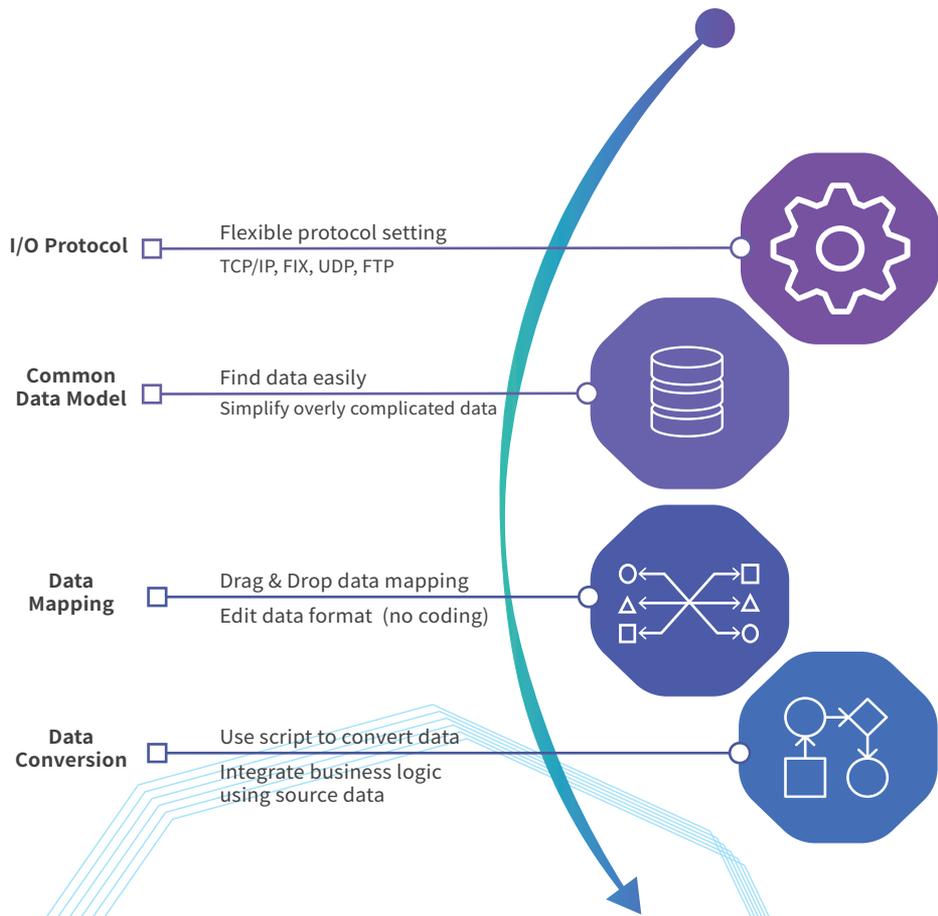
Connectivity

Increase

Business scalability

VIA FEATURES: Data Solution

We want to reduce repetitive coding when streaming data pipeline and data mapping. The workflow can reduce down the time and effort by simplifying development and operation by using a common data model, a data mapping, and a scripting tool. These functions allow users to establish data pipeline for their organization easily and also to convert these data without extensive codings involved.



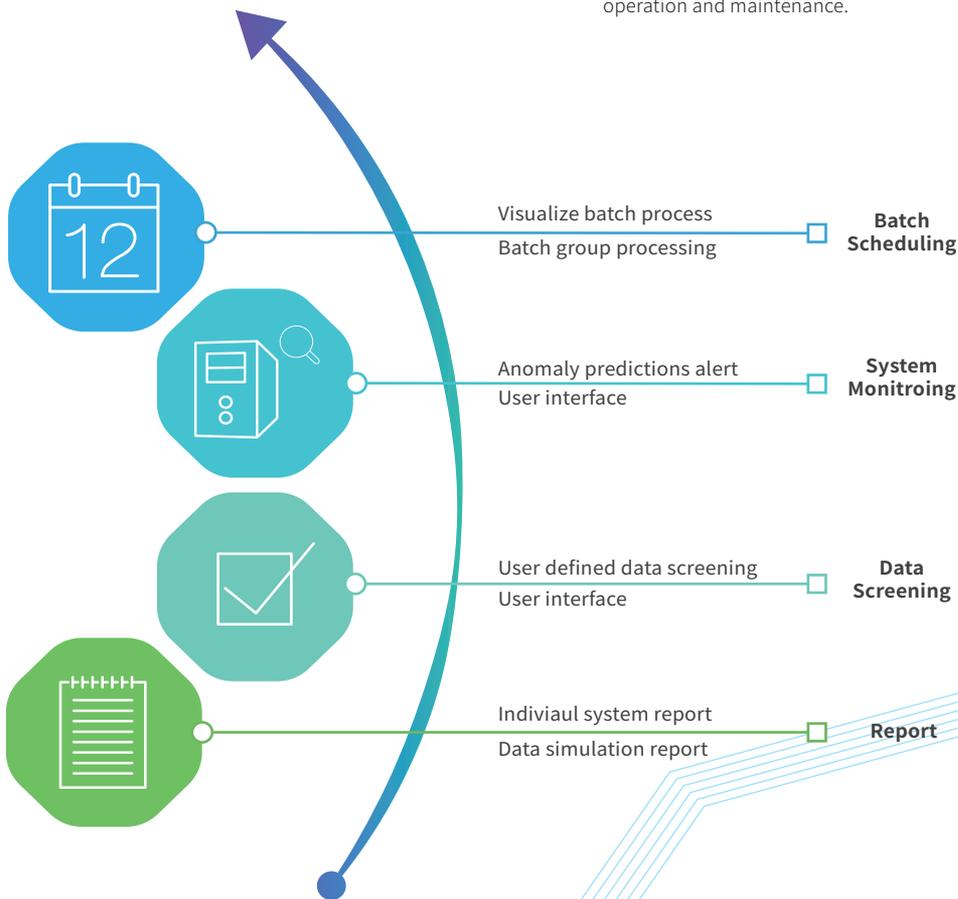
Enhance development process with VIA Workflow

Workflow is designed to connect data, source to destination (into solution, reports, backend system, data warehouse, etc.) Also, Python can be used during the mapping phase to make new columns of data with business logics integrated. We used python since it is one of the most commonly used languages, thus more user-friendly.

VIA FEATURES: Individual System Operation

Stable connectivity is very critical for any financial institutions, especially with transactions. It needs to maintain its system up and running, and if any downtime occurs during the business process could potentially lose millions to billions of dollars.

VIA is built to monitor for any system or data anomalies. Once detected it sends SMS or e-mail alerts to the user, making sure their system is 100% operational. Also, VIA provides batch scheduling and process dashboard for easy IT operation and maintenance.



OPERATING & MONITORING

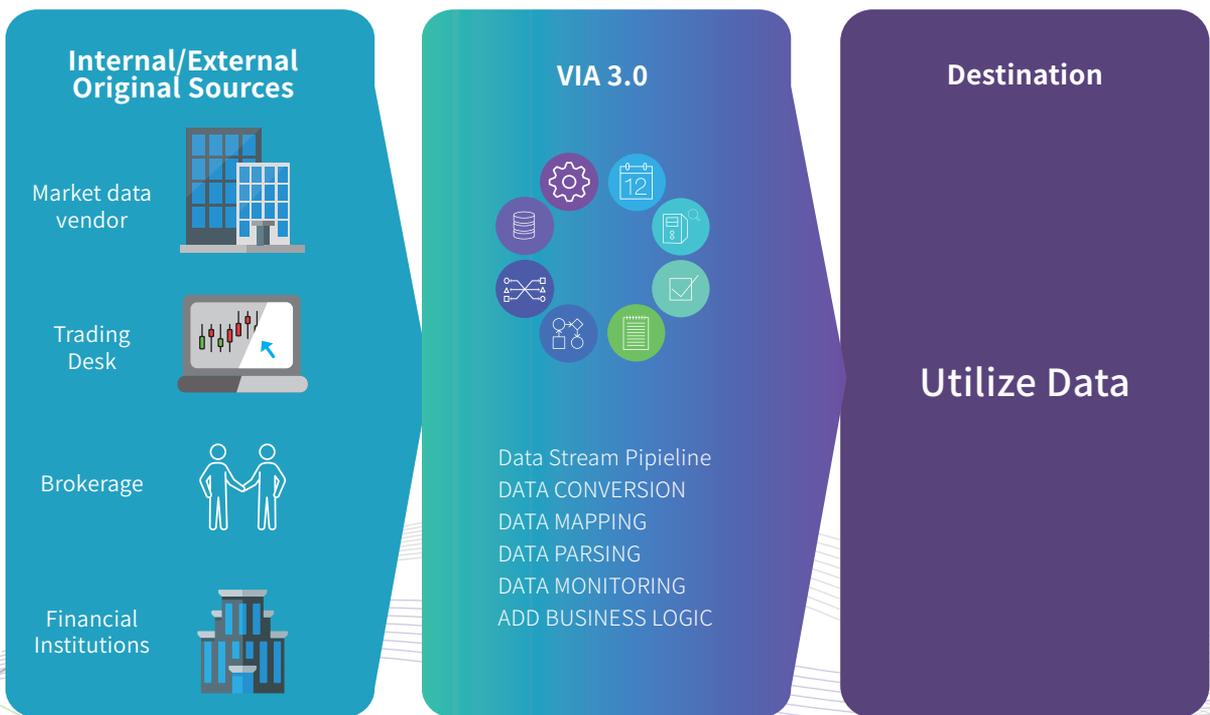
Companies spend hundreds to millions of dollars on the overpriced batch scheduler and monitoring solutions. VIA platform presents a cost-effective 'easy-to-control' batch scheduler, a process handler and a monitoring tool.

VIA SOLUTION: Applications

VIA can establish data pipeline from market data vendors (Bloomberg and Thomson Reuters) to our client's backend system with ease. In the current market, each data vendors have their naming rules (Ticker, RIC, etc.) and format, which can be complicated for users to analyze. The common data model has been established, so the user can easily identify the data from these data vendors without in-depth analysis. Also, the client can compare the data from different vendors using one of our analytic tools.

Our clients can also consolidate, convert and map out their internal or external data using VIA. These flexibilities provided by VIA has many implications as it can be applied to various scenarios. Moreover, the client can setup their own common data model, to keep maintenance simple, which will make the business operation more scalable as business operation expands.

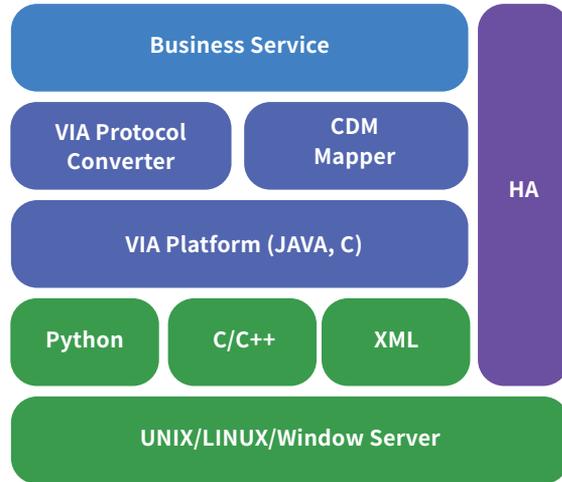
Lastly, VIA monitoring dashboard user interface enables clients to control and to maintain applications with ease.



Data Consumer	Most common data used	How these data utilized VIA?
Financial institutions Brokerage firms Security houses Individual trader Security exchanges Insurance	Market data (ie, Bloomberg) - including OTC Transaction audit trails Transaction histories Language translation (ie. KR -> EN) Corporate information Counterparty information Economic indices Financial reports IFRS	Data allocation Data integration Data format edition Integrate calculation onto source data Business simulation Data Integrity cross reference check Report generation

VIA SOLUTION: Architecture

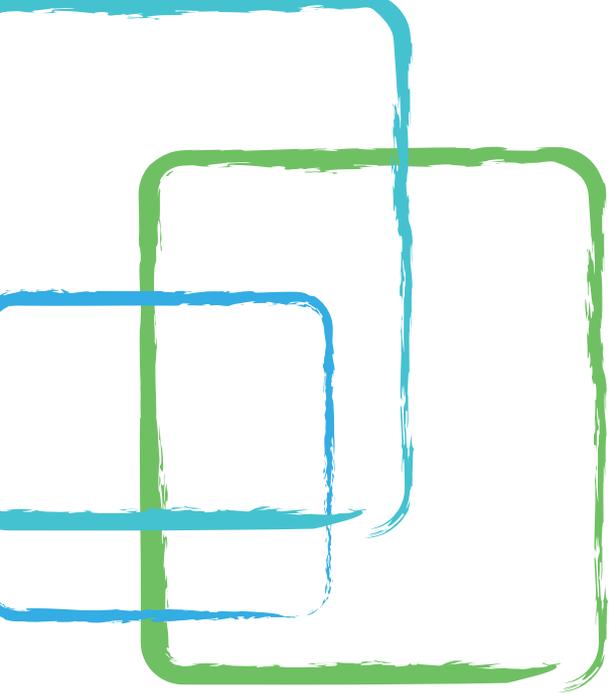
VIA solution is built using JAVA thus compatible with C / Python to provide flexible interface protocol and DATA MAPPER function based on the common data model. The system is also compatible with Window / Linux / Unix. The dashboard, monitoring function, and batch schedule management are also available, which controls and monitors individual application or in-house system to give an instant overall view. Python scripting tool is used to apply various calculation methods and business logic when converting data. We have made the program compatible with GPU for a faster calculation. C version of VIA is also available designated for system trading to interface deal insertion, transaction, and confirmation.



TECHNICALS: H/W & S/W Requirements

Categories		Requirements
O/S Support	VIA Server	Windows 7(32bit, 64bit) Linux
	VIA Client	Windows 7(32bit, 64bit)
Computer/Processor	Minimum	Pentium 4
	Recommended	Intel Core i3 or faster
Physical Memory (RAM)	Minimum	2GB
	Recommended	4GB, more memory improves performance
Display	Recommended	1920 x 1080
Hard Disk	Recommended	10 GB of available space

Categories	Details
Language	JAVA, Python, C/C++
Database	MySQL, MS SQL, Oracle, Sybase, Infomx



FOR MORE INFORMATION

VIA Solution

http://www.bitor-group.com/solution_via.html

ABOUT BITOR GROUP

Bitor is a powerful solution company located in Seoul and Singapore, the heart of Asia, specialized in financial technology. Our goal is to build a bridge between finance and IT sector. We do so by commonizing market data that have become extremely complicated and entangled over the years.

We simplify these data, using common data model, making it more understandable to the general public. Thus IT developers or operators can quickly develop and deploy their services without having to waste time on decoding and analyzing the source data.

We have helped several organizations since 2014 to integrate market data into their solutions such as Kondor+ and their in-house systems at low cost.

Together with our consulting service and solution, our clients can have a competitive edge over their competitors.



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