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RISK CONTROL

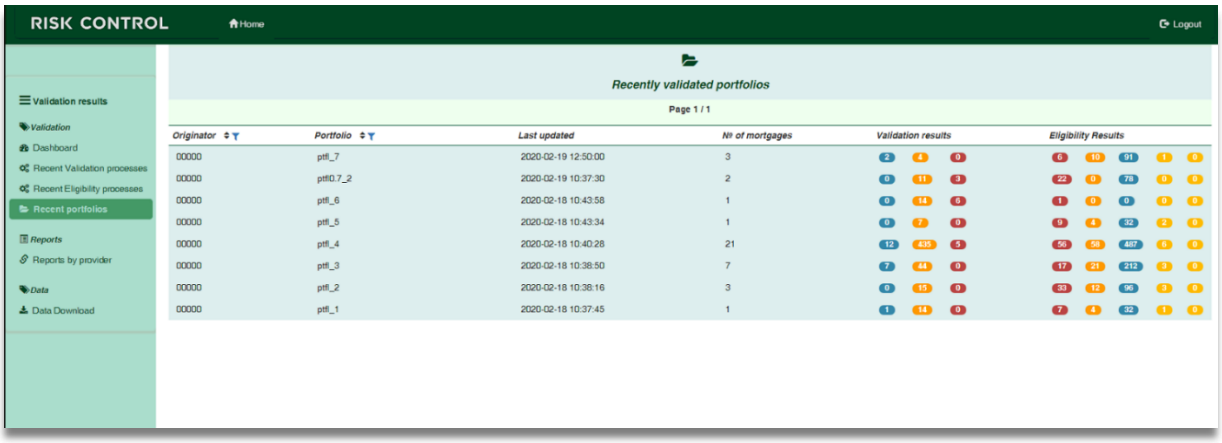
Note

RC-Connectivity and Data Validation System

Investors in loan portfolios originated by banks or other lenders face significant challenges in automating the flow of information they receive from counterparties. Information flows include data about new portfolios proposed for sale by counterparties (i.e., pre-booking data) and information about payments, amortisation and changes in borrower characteristics after purchase (i.e., post-booking data).

Organising and automating data flows can permit risk and operations staff to deal with substantial portfolios in a timely and effective manner, cutting costs and permitting the investor to gear up its activities as portfolios and investable resources become available.

To solve the challenges faced by investors, Risk Control has constructed an integrated Connectivity and Data Validation System. This system can radically simplify and enhance the effectiveness of investment decisions for loan portfolios and the management of these portfolios post acquisition.



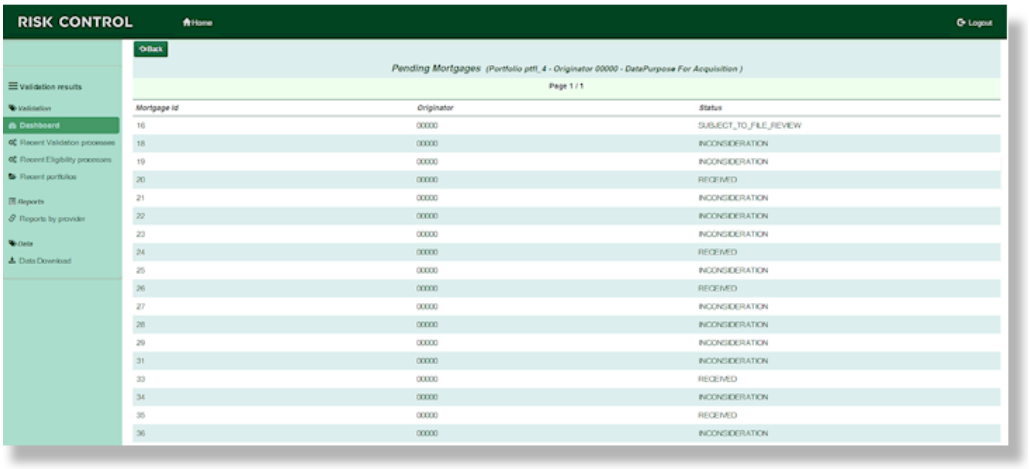
RC-Connectivity and Data Validation System Features

- UIs permit counterparties to check the status of their data uploads and allow the investor's own staff to view the results of the rules-based checks.
- UIs also support a workflow of decision-making by the investor's risk and operations staff for loans in the pre-booking phase.
- Loan data may take different forms but a standard data template distinguishes between characteristics, payment information and amortisation schedules.
- These data categories are then represented in the XML schema.
- The system may be established in a set of internal servers within the investor's IT infrastructure.
- Typically, an outward looking server in a Demilitarised Zone (DMZ) hosts the Connectivity Application.
- This passes validated XML files to a database installed on a secure server located within the investor's internal network behind an inner firewall.

The system is made up of integrated, web-based software and database components. Cutting-edge Java and XML technologies are employed to deliver a stable, secure and highly effective software solution.

Counterparties upload data in XML format via a web service offered by a Connectivity Application. The web service may be accessed directly or counterparties may use a data portal or file servers to upload data in the form of XML files. The Connectivity Application validates the uploaded data against an XML Schema Design (XSD).

A second server component, termed the Validation Engine, then implements rules-based checks on the submitted data, assessing eligibility criteria, data quality and performing informational checks. These rules-based checks may themselves be specified flexibly using an XML syntax. Users may modify and develop the checks they apply progressively over time as the data or their requirements evolve.



Technical Information
The RC-Connectivity and Validation System comprises two main components which are mostly used in combination.

1. RC-Connectivity
RC-Connectivity is a Java based system for the exchange of structured data. Information is sent to the server in the form of XML or JSON data and validated against a defined schema which describes the nature of the data. This incoming data is then stored for further processing. The RC-Connectivity component also provides user interfaces for sender and receiver of the data which allows some tracking of the transmitted data and monitors problems such as invalid data, which then can be corrected and resent.

2. RC-Validation
RC-Validation is a descriptive validation system for structured data. Sets of user defined validation rules, formulated in an XML description file, define a validation process for data that shall be validated, such as the data provided by RC-Connectivity. Validation rules are flexible and can be changed at any time. The results of the validation processes and the affected data can be monitored via an embedded user interface.

The software is written in Java and runs inside an application server. Current versions are optimised for JBoss, which provides a reliable, secure and, in situations of high throughput, clusterable platform that can be installed on any operating systems for which a Java Virtual Machine is available. We provide a wide range of databases such as Oracle, Postgres, MySQL, MSSQL etc.

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