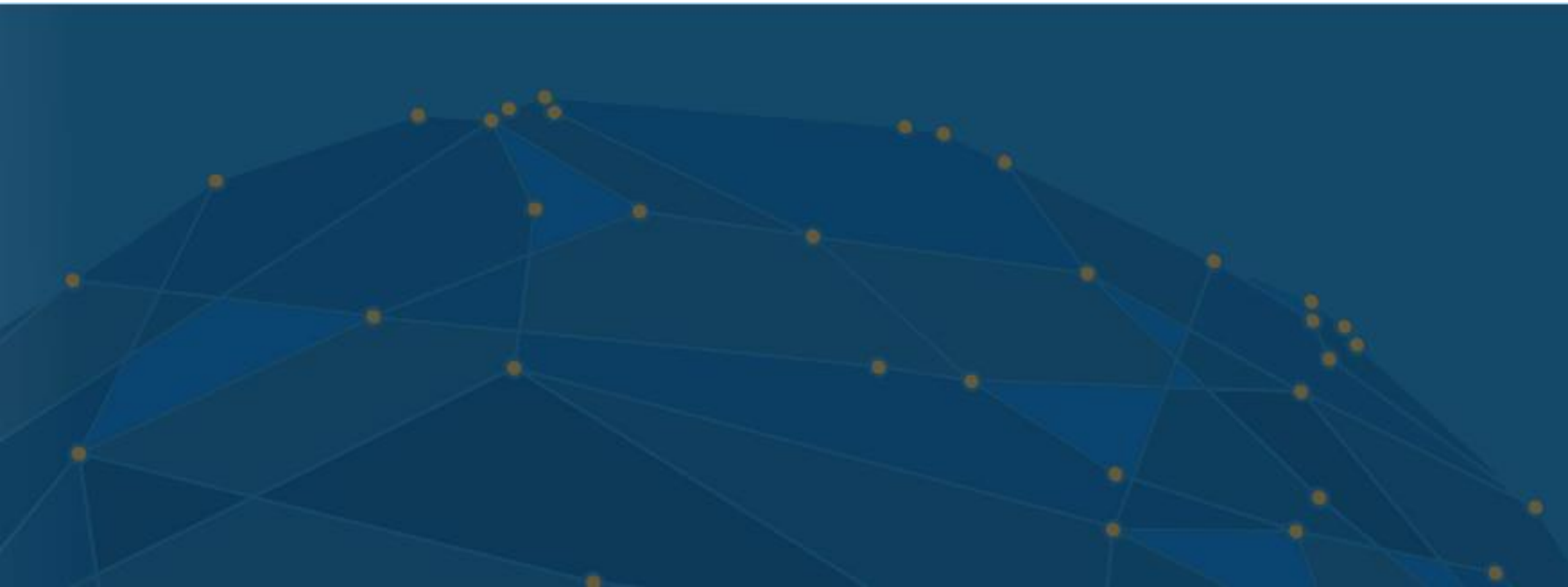


MIAC ANALYTICS LTD™

SUPERIOR ANALYTICS IN OUR DNA



Independent Due Diligence Services



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# About Us

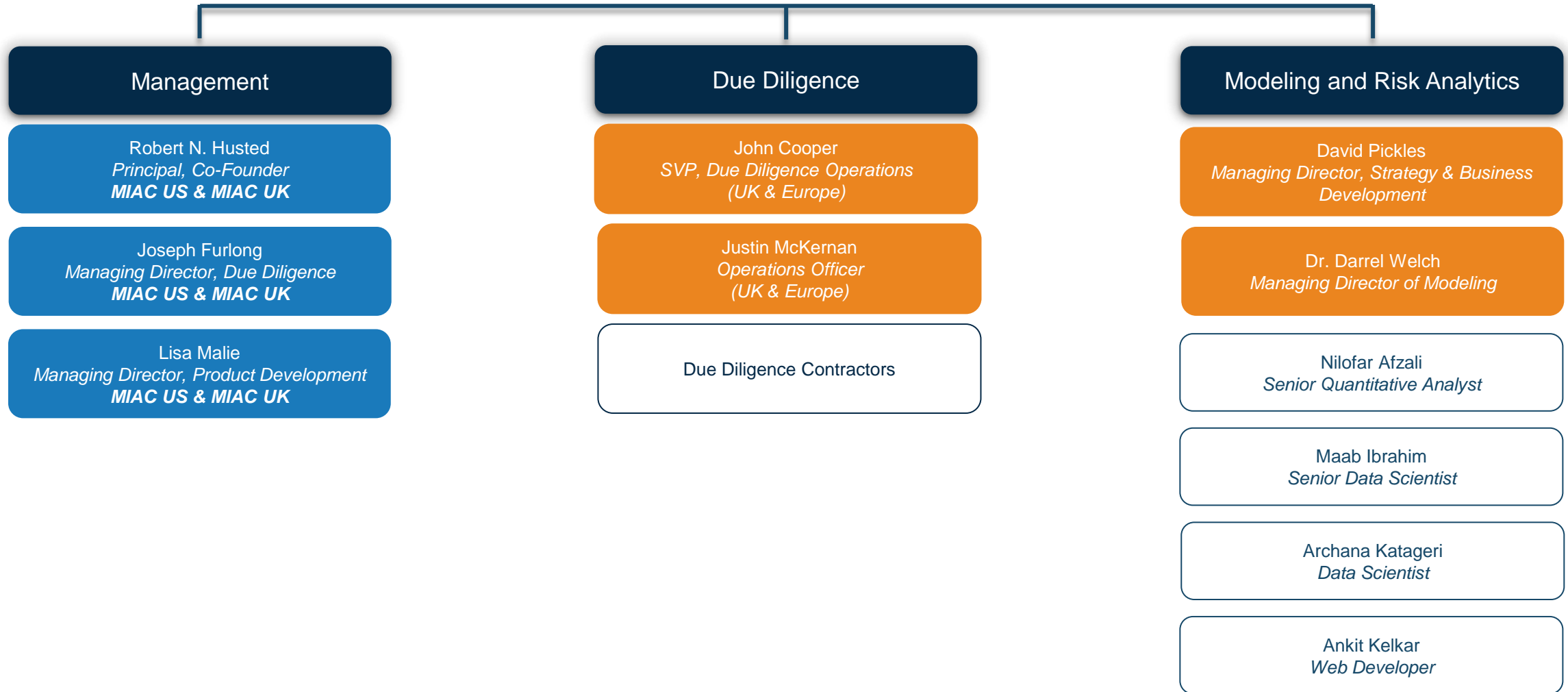
## **MIAC Analytics Ltd.**

MIAC Analytics Ltd. is an independent provider of comprehensive services to the financial services industry, specialising in due diligence, asset valuation, stress-testing, risk analytics, model development and validation, and advisory. Our aim is to empower our clients with the use of sophisticated data and analytics, enabling them to make more informed risk and business decisions.

## **MIAC Analytics**

For over 30 years, MIAC Analytics has been the preferred destination for mortgage industry participants offering transaction execution services, secondary market hedge advisory solutions, third-party mortgage asset valuations, as well as state-of-the-art valuation and risk models incorporating a full range of consumer behavioural risk factors. MIAC is an international firm headquartered in Midtown Manhattan, NY – with additional sales and development teams in North Carolina, Pennsylvania, Wisconsin, London, and India.

# Corporate Structure



# Key Services

We offer our core services for any asset class with a primary focus being residential mortgages, buy-to-let mortgages, lifetime mortgages (equity release), securitisations, consumer loans, commercial loans, auto loans and unsecured debt.



## Advisory

- Property Analytics
- Risk Management
- Due Diligence
- Regulatory Compliance
- Valuation and Pricing
- Climate Change Risk
- Capital Markets



## Software

- Asset/Liability Management
- Risk Management
- Due Diligence
- Data Management
- Bond Valuation and Structuring
- Pricing and Valuation



## Products

- Rental AVM
- House Price Index
- Rental Index
- Property Analytics Platform
- Rental Yields



## Data

- EPC
- Cladding
- Property Data
- Subsidence
- Flood
- Construction Type
- Loan Behaviour

# MIAC Analytics™ Software Suite

**Customised solutions to meet your needs** — Spanning the analytical spectrum from loan origination, balance sheet risk management and the pricing of risk retention pieces, MIAC Analytics™ is the integrated and comprehensive analytical solution for mortgage originators, servicing hedgers and mortgage portfolio managers.

## VeriFi™

Comprehensive Loan Due Diligence Full Credit and Compliance

## MarketShield®

Pipeline Hedging and Secondary Marketing Best-Execution

## DataRaptor®

Loan Level Data Management, Data Auditing and Stratification

## WinOAS™

Mortgage Servicing Rights Pricing and Valuation Model

## MIAC IDS™

Loan Level Portfolio Management System for MSRs and Whole Loans

## VAST™

Variable Assumptions Set Tool

## Vision™

Asset and Liability Management, Asset Valuation and Stress Testing, CECL and DFAST Modelling

## CORE™

Mortgage and Consumer Loan Behavioural Models

# Client List



# Global Impact

MIAC offers extensive Due Diligence services to our clients throughout the United States, Europe, the UK, and other global regions. We assist in helping you assess the worth of your assets by leveraging our expertise, software solutions, and in-depth knowledge of the ever-changing market.



**MAINLY ACROSS THE US AND  
EUROZONE**

**20+ COUNTRIES**

**160 CITIES**

**10+ PROJECT TYPES**



# Due Diligence Solutions

MIAC performs the following Residential Review types to assist in mitigating risk:

- ✓ Re-Underwriting Review
- ✓ Credit Guideline Adherence Review
- ✓ Payment History Review
- ✓ Collections Review
- ✓ Reporting & Special Servicing Review
- ✓ AUP (Agreed Upon Procedures) Review
- ✓ Data Capture Review
- ✓ Document Inventory Review
- ✓ Document Sufficiency Review
- ✓ Non-Performing | Distressed Asset Loan Review
- ✓ Property Valuation Review
- ✓ Policy and Procedure Review
- ✓ Loan Boarding Review
- ✓ Data Integrity Review
- ✓ Servicer Review and Evaluation

# Diversity of Loan Asset Experience

MIAC has direct experience reviewing a variety of loan asset types.



# Due Diligence Contractors

MIAC collaborates with several financial services experts throughout the UK and Europe. The consultants we engage with are highly experienced in their respective fields and maintain long-standing relationships with both MIAC and our management team. All of our consultants are personally acquainted with the MIAC team, and we ensure they stay updated on regulatory and market changes consistently.

## **Our contractors possess expertise in a multitude of areas, including:**

- ✓ Underwriting
- ✓ AUP
- ✓ Servicing
- ✓ Complaints
- ✓ Data Integrity
- ✓ Consumer
- ✓ Development
- ✓ Auto Finance
- ✓ Policy and Procedures

# Credit and Data Review

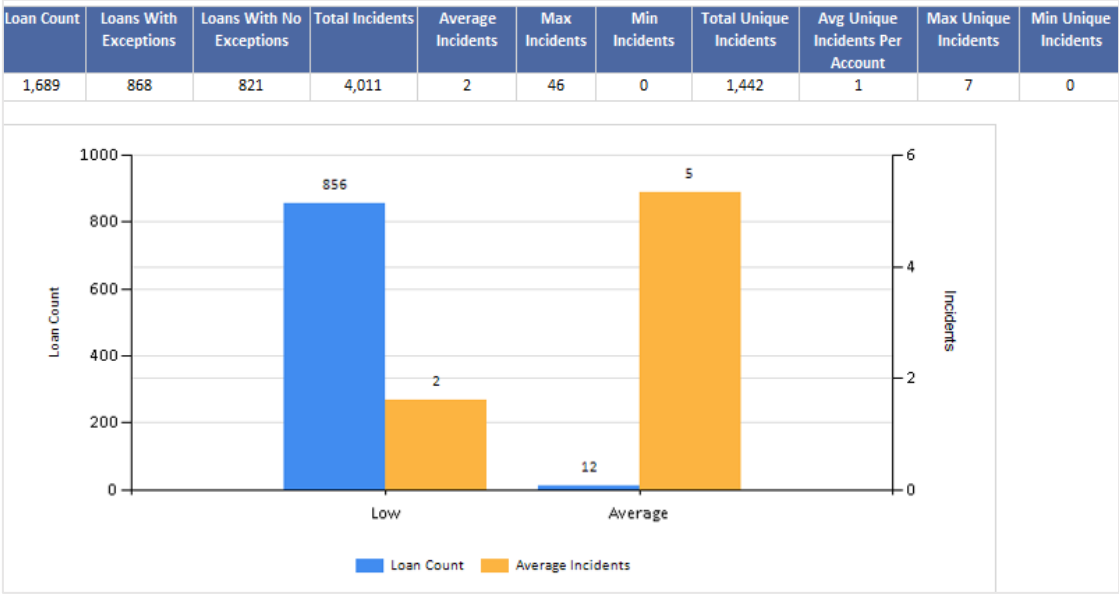
To assist in the facilitation of a sale/purchase of, for example a secured loan portfolio, MIAC can complete a comprehensive review that includes:

- Data Validation
- Document/Collateral Inventory
- Full Exception Summary
- Updating data on occupancy, employment, income, and borrower identity
- Loan Grades

# Pay History and Collection Comments Review

MIAC can perform reviews of payment history and servicer collection notes/comments for loan buyers:

- Automated review of servicer collection comments which retrieves selected key words.
- Through this process, MIAC will be able to isolate specific loans where a high concentration of matches are found.



# VeriFi™ Overview

Whether your organisation is a bank, investor, or lender asset servicer, VeriFi™ is fully customisable and has the ability to fit the scope of almost any project. Its capabilities include:

## Centralised Administration

- Provides full team and user management capabilities before and throughout the review process.

## Comprehensive Reporting

- Generates up to date performance measurements, executive narratives and progress reporting.

## Income Calculator Workbooks

- Enhances the review process by accessing the easy-to-use workbooks to create income determinations.

## 4 Key Modules

### VeriFi™ Management

Control centre where users can manage every aspect of your due diligence operation.

### VeriFi™ Administration

Streamlines the review process by allowing real-time updates to the project.

### VeriFi™

Complete due diligence reviews with the intelligent workflow and features.

### VeriFi™ Sync

Establishes a connection between the home office and review location.

# Integration

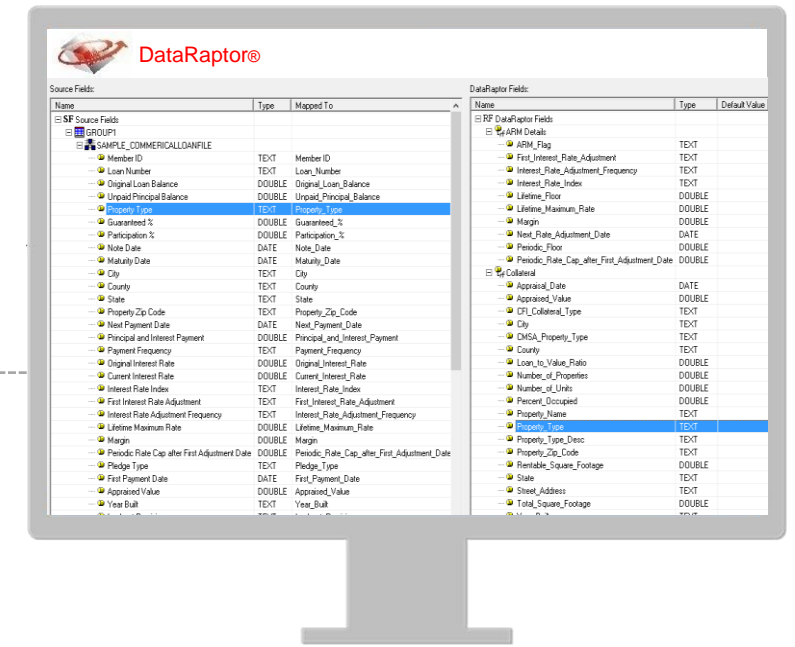
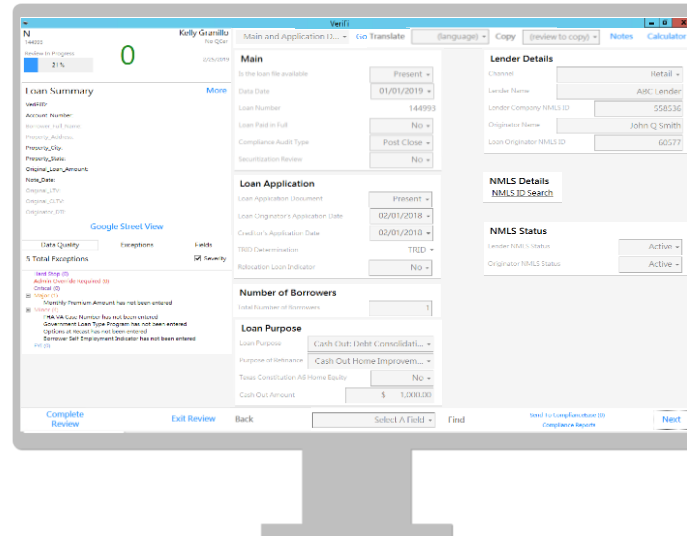
VeriFi works hand in hand with DataRaptor®

The original loan file is processed using DataRaptor® assets including:

- Data Models
- Normalisation
- Exception Reporting

This will allow **VeriFi™** to target specific data points to be completed during the due diligence project.

**VeriFi™** output feeds back into DataRaptor®

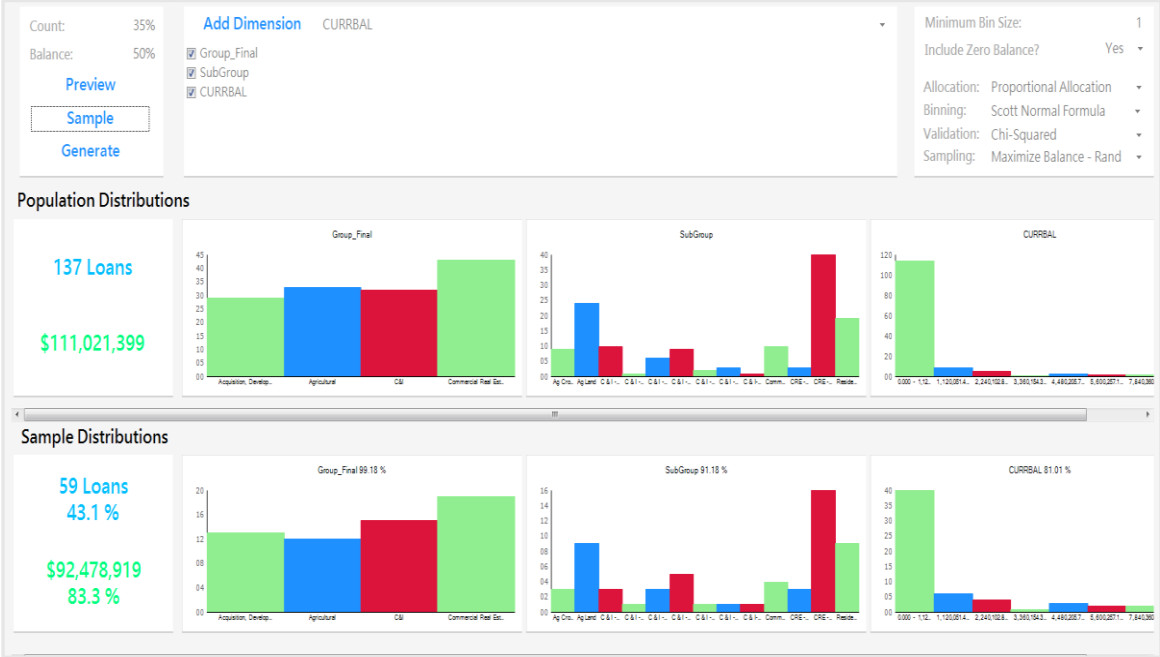


## DataRaptor®

An ETL system that processes the incoming data (normalises in-bound loan data, maps data fields, applies a variety of data exceptions, audit and eligibility rules, etc.).

# Loan Sampling

Loan samples can be generated easily using a configurable user interface. Advanced algorithms are utilised to generate a truly representative sample of the overall portfolio based on client specifications while giving visual and analytical confirmations that can be shared with all parties.





# Defining Templates

Detailed exceptions can be configured within VeriFi. Creation of new exceptions can easily be accomplished by the Project Administrator rather than a software developer either at the beginning of a project or along the way based on configurable procedures. Exceptions can validate:

## Compare Numbers (Value)

Confirms that two fields aren't different than each other by a specified amount

## Check Blank Field

Ensures that a value is entered for the specified field

## Date Bounds

Ensures that the specified date falls between a Min and a Max date

## Compare Value

Ensures that two fields have the same value entered

## Check Value

Verifies that the value entered in the field is equal to the value that the user specified

## Check Upper/Lower Bounds

Verifies that a field is within an upper or lower bound

## Compares Numbers (Percent)

Confirms that two fields aren't different than each other by a specified percent

## Check Number Bounds

Verifies that a specified field is inside or outside of the range of two specified numbers

## Composite

Choose "and" or "or" and assign an already existing exception

# Exception Status

Detailed exception level comments are maintained illustrating either **Automated system messages** or *adjusted Manual comments*.

Specific exception statuses are available:

- Active
- Cleared
- Acknowledged by Client
- Acknowledged by Seller
- Rejected by Client
- Open Rebuttal

Exception Dashboard

16 Total Exceptions

- Active (4)
  - Acknowledged by Client (0)
  - Acknowledged by Seller (0)
  - Rejected by Client (0)
  - Open Rebuttal (0)
  - Hazard Insurance Document Missing
  - The Asset Statement Status is Missing
  - The Original LTV is greater than allowed
  - The Original Combined LTV is greater than allowed
- Cleared (12)
  - Hazard Insurance Document Partial
  - The Asset Statement Status is Partial
  - The Cash to Close is Not Supported
  - The Downpayment is Not Supported
  - The Evidence of Layered Risk is Yes
  - The Overall HOEPA Test is Blank
  - The Overall HOEPA Test Failed
  - The Rate Lock Agreement is not provided
  - The Original Loan Amount does not equal expected 203k Loan Amount
  - The HOEPA test was not able to be determined
  - The Hazard Insurance Coverage Amount is less than Original Collateral Value
  - The Hazard Insurance Dec Page is provide but does not include Collateral Coverage Amount

Indeterminate
  Reviewer
  Loan
  Credit
  Compliance
  Property

Status Distribution

Material vs Non-Material

Hazard Insurance Document Missing

The exception is currently Non-Material

Do you want to change to Material ?

CHANGE

(New Comment)

---

Current Status: Active

Acknowledged by Client
  Rejected by Client  
 Acknowledged by Seller
  Open Rebuttal  
 Active
  Manual Comment

SUBMIT

Current Field Values:

Hazard Insurance Document Missing

RESET
CONFIRM

Historical Field Values:

(Filter)

REVIEW & QC	CLOSED
JFurlong (WA):	The Hazard insurance document is missing
1/17/2018 5:59 PM	
System Message:	Change severity of 'Hazard Insurance Document Missing' from Material to Non-Material
JFurlong (WA) 1/17/2018 1:42 PM	
System Message:	The exception 'Hazard Insurance Document Missing' is thrown. Hazard Insurance Document----Missing
JFurlong (WA) 1/17/2018 1:28 PM	
System Message:	Hazard insurance document is Present
JFurlong (WA) 1/17/2018 1:28 PM	
System Message:	The exception 'Hazard Insurance Document Missing' is thrown. Hazard Insurance Document----Missing
JFurlong (WA) 1/15/2018 1:23 PM	

# Contact Details



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