



INTAINAI

AUTOMATED DOCUMENT PROCESSING IN LOAN OPERATIONS

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INTRODUCTION

Over two-thirds of documents in loan and mortgage operations are unstructured. **Some operations are still human resource intensive** and face challenges related to volume fluctuations:

- Reduced volumes lead to unit cost increases and friction due to redundancies
- Increase in volume results in loss of revenue due to delay in scaling up, step increase in costs

Many **others have adopted software systems that have not kept up with rapid advancements** in artificial intelligence. This is what we often hear from them:

“We have no control over input files, which may have separate documents or all-in-one.”

“Every document has a different format, so we cannot use any template.”

“We are not able to process scanned documents.”

“We need to manually reconcile the extracted data with our database.”

IntainAI addresses all these challenges with AI-enabled document classification, data extraction and validation, with an integrated workflow.

With IntainAI, **document processing costs in Due Diligence, Valuation and Servicing, can be reduced by up to 90%**. From segregating large files into separate document types, classifying those, extracting required data, doing compliance checks, and verifying against another data source, everything is automated by IntainAI.

90%

Reduction
in Processing
Effort

30-50%

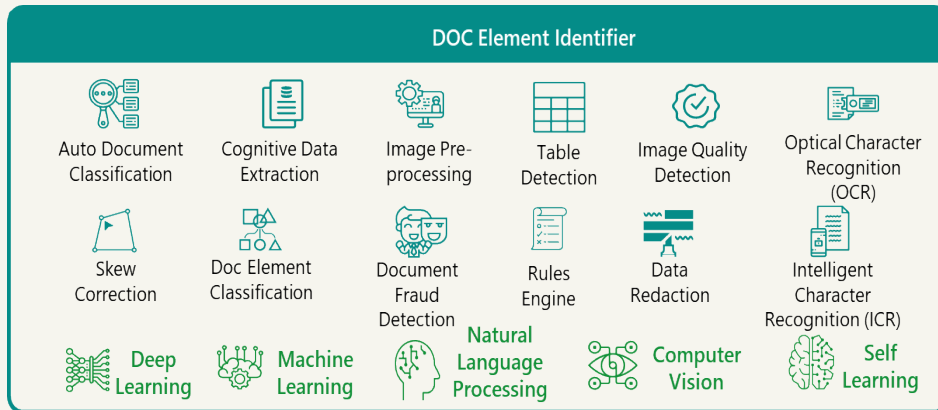
Reduction
in Review Effort

VERSATILE

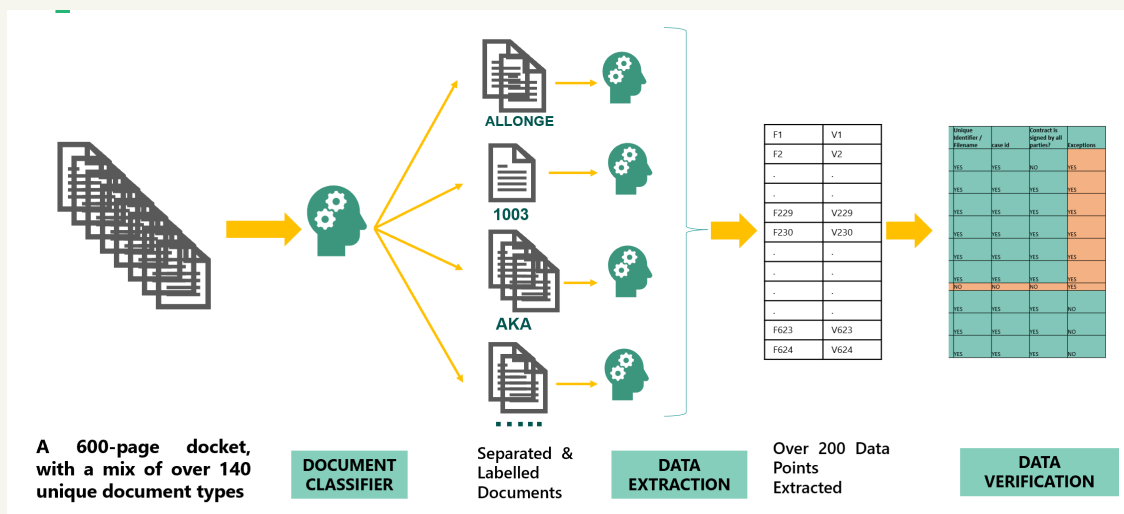
File Format (PDF, Image, Scans)
Template Agnostic (Originator, State)
Asset Class (Mortgage, SMB, Auto etc.)

FEATURES

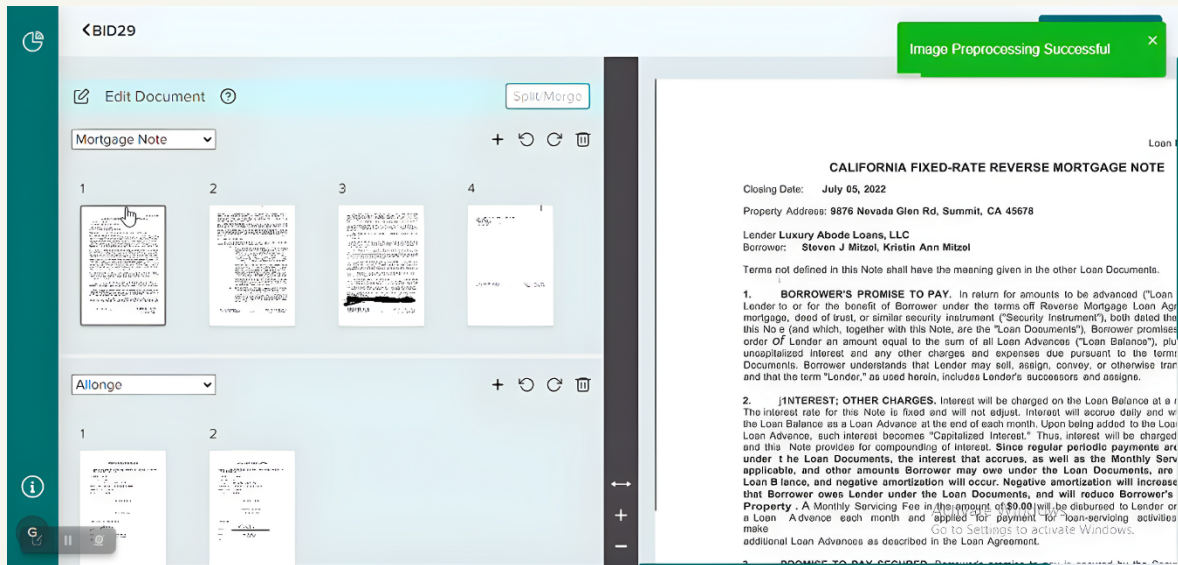
IntainAI uses *Doc Element Identifier* (DEI), a patent-pending, proprietary software that combines multiple modules which are essentially to be able to understand unstructured and semi-structured documents.



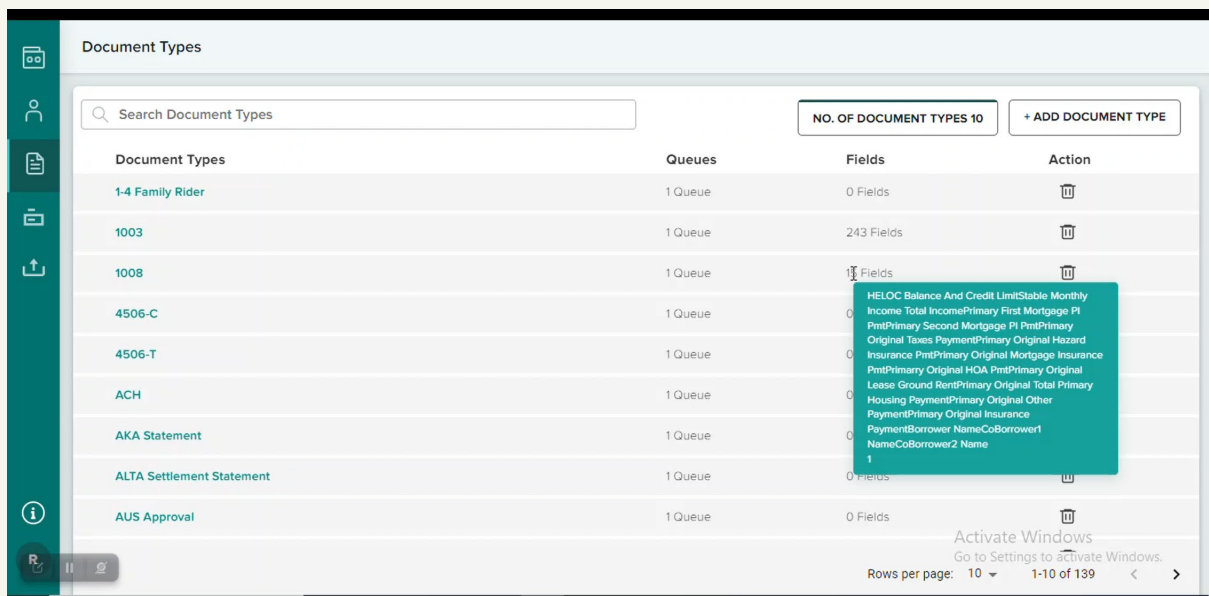
Let us understand the features of IntainAI with an illustrative example. A 600 page mortgage file, comprising of more than 140 document types is uploaded to IntainAI.



1. CLASSIFICATION

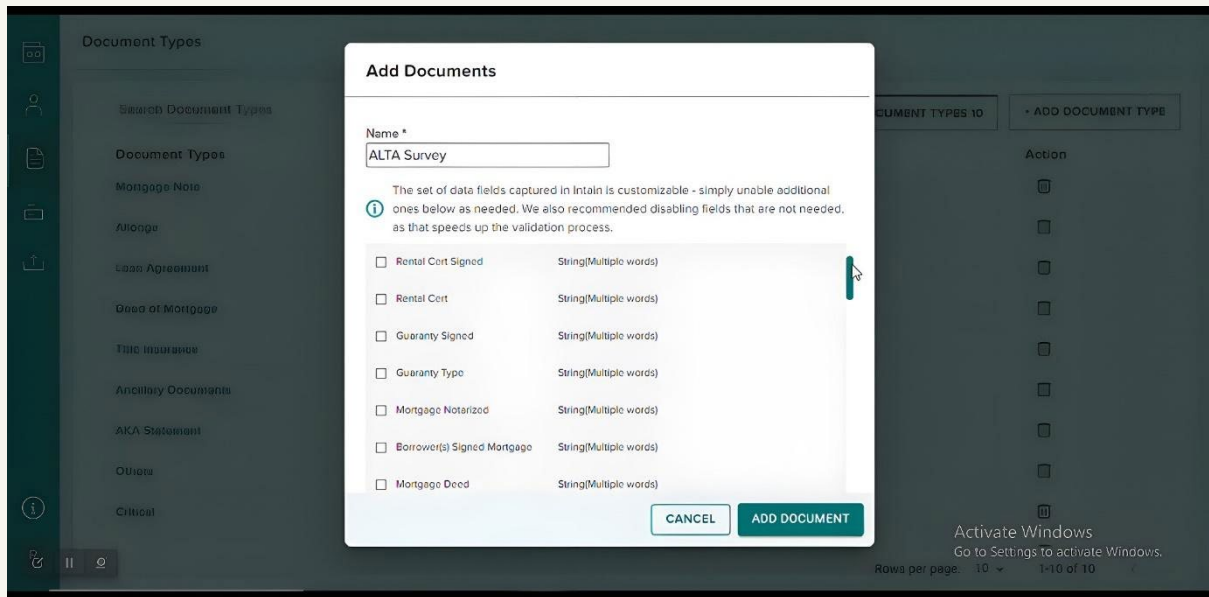


A large file is separated into different document types and each document is classified automatically.



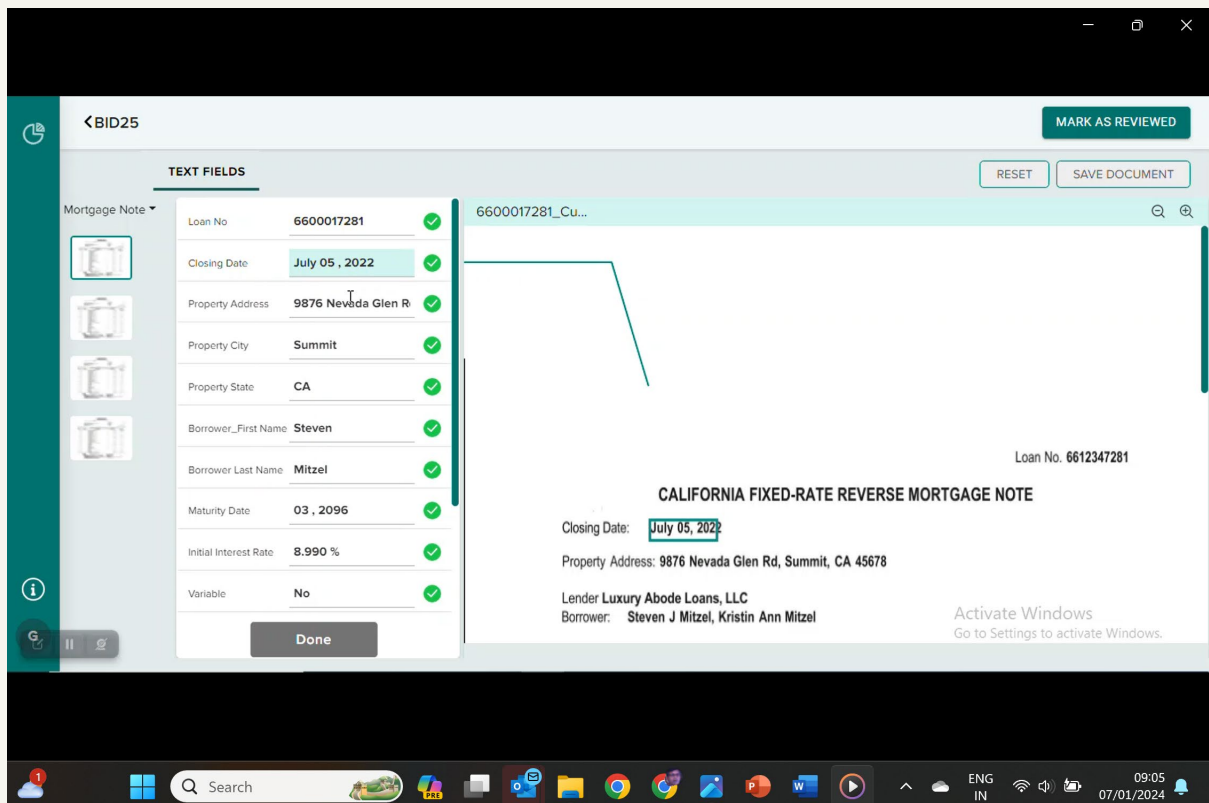
IntainAI is trained to classify more than 140 types of documents in a mortgage file.

It is also designed to **add new document types** with ease.



2. DATA EXTRACTION

Required data across document types is extracted. You can decide what data you want from each document and configure IntainAI accordingly. And as part of our collaborative intelligence framework, the **software assists you in reviewing the extracted data**, without having to scan through the whole document – so it is pressing ‘tab’ a few times and you can finish the review in seconds.



But, given our background in financial services, we know that proper controls are still needed. Hence, at each step, viz. classification, extraction, and verification, IntainAI also assists the reviewer in reviewing its own work. This leads to **100% automation of processing and 30-50% more efficiency in review**. That is why we call it **Collaborative Intelligence**.

TEXT FIELDS

1003

UU 549300U2WRK558Y6

Borrower First Name THOMAS

Borrower Middle Name NA

Borrower Last Name JOHN

Borrower Social Security Number 729-49-1234

Borrower Date Of Birth 12/30/1975

Borrower US Citizen NA

Borrower Permanent Resident Alien NA

Borrower Non-Permanent Resident Alien NA

Done

MARK AS REVIEWED

RESET SAVE DOCUMENT

To be completed by the Lender: UBRAN MORTGAGE CORP. DBA PROSPERITY MORTGAGE

Lender Loan No/Universal Loan Identifier 9032294587 / 549300U2WRK558Y6

Agency Case No. 1003294587

Uniform Residential Loan Application

Verify and complete the information on this application. If you are applying for this loan with others, each additional Borrower must provide information as directed by your Lender.

Section 1: Borrower Information. This section asks about your personal information and your income from employment and other sources, such as retirement, that you want considered to qualify for this loan.

1.a. Personal Information

Name (First, Middle, Last, Suffix) THOMAS C. JOHN

Alternate Names - List any names by which you are known or any names under which credit was previously received (First, Middle, Last, Suffix)

Social Security Number 729-49-1234

Date of Birth 12/30/1975

Citizenship U.S. Citizen

0 Permanent Resident Alien

0 Non-Permanent Resident Alien

Type of Credit

0 I am applying for individual credit.

0 I am applying for joint credit. Total Number of Borrowers: 1

Each Borrower intends to apply for joint credit. Your initials: --

List Name(s) of Other Borrower(s) Applying for this Loan (First, Middle, Last, Suffix)

Marital Status

0 Married

0 Separated

0 Unmarried*

Dependents (not listed by another Borrower)

Number 0

Ages --

Contact Information

Home Phone (801)425-4321

Cell Phone (801)425-4321

3. DATA VERIFICATION AND COMPLIANCE CHECKS

Next step is verification and compliance checks.

1. **Verifying data against another data source** (Loan Origination System, Loan Management System etc.)

Match Unmatch Data

SAVE

THIS IS A COPY

Copy View

Engineering Immersive

General Assembly Inc.

Camillelli

Margaret

\$000014655

Yes

Yes

24

LMS

Contract

Amount Financed

Amount Financed

12400

\$12,400.00

Program Name

Program Name

Sales Developm

Sales Develop

Bootcamp Name

Bootcamp Name

Elevate

Elevate

First Name

First Name

Eric

Eric

Last Name

Last Name

Odesser

Odesser

Contract #

Contract #

3000015134

3000015134

Sign 1

Sign 1

FinWise Bank

The standard document requirements are outlined below. For a review of the specific documents needed for your application and to securely upload, please log into your account. If mailing documents, MAKE COPIES for your records.

Checklist

Approval Disclosure

- Copy of the Approval Disclosure, signed and dated, unless electronically signed.

Income Share Loan Agreement (Promissory Note)

- Copy of the ISLA, signed and dated, unless electronically signed.

RETURN BY ANY OF THE FOLLOWING METHODS:

UPLOAD: To your online account

Fax: 717-241-3188

Email: support@finwisebank.com

Mail: FinWise Bank

c/o Slide Funding

P.O. Box 901750

Boston, MA 02199

Please contact (214) 775-9960 to speak with a call center representative for program information or if you have questions regarding the required documentation.

Activate Windows

Go to Settings

2. Checks for signatures and/or use AI-enabled image review for matching signatures.

The screenshot displays the IntainAI interface for reviewing a document. On the left, a sidebar shows a list of documents with thumbnails. The main area is divided into two panels. The left panel, titled 'TEXT FIELDS', contains a table with the following data:

Field	Value	Status
Loan Agreement	6600017281	✓
Lender	Luxury Abode Loans	✓
Borrower(s) Signed	Yes	✓
Lender_Signed	No	✗
Total Initial Advanced	NA	?
Principal Limit	734,580.00	✓
Initial Credit Limit	NA	?

The right panel shows a preview of the document, titled 'CALIFORNIA REVERSE MORTGAGE LOAN AGREEMENT'. The document text includes:

6600017281_Cu...

66N0011234

CALIFORNIA REVERSE MORTGAGE LOAN AGREEMENT

Closing Date: July 05, 2022

Property Address: 9876 Nevada Glen Rd, Summit, CA 45678

Lender: Luxury Abode Loans, LLC

Borrower: Steven J Mitzel, Kristin Ann Mitzel

This Reverse Mortgage Loan Agreement ("Loan Agreement") is made between Borrower and Lender. Borrower understands that Lender may sell, assign, convey, or otherwise transfer this Loan Agreement, and that the term "Lender," as used herein, includes Lender's successors and assigns.

REVERSE MORTGAGE LOAN

At the bottom of the interface, there are buttons for 'RESET', 'SAVE DOCUMENT', and 'Done'.

All this data is now natively available in your software systems which **can be searched, queried and processed; and used by your decision systems.**

VERSATILITY, FLEXIBILITY AND SAVINGS

If IntainAI is not pre-trained on a particular document that you need to process, we ensure

- **near zero-cost training, and**
- **deployment in two to four weeks**

5000 Loans

55,000 Pages

1 Batch¹

2 Person-Hours²

1 Verified By **INTAINAI**

2 Reviewed And Certified By A **Verification Agent**

Here is metrics from what would be just another day for IntainAI in of our engagements.

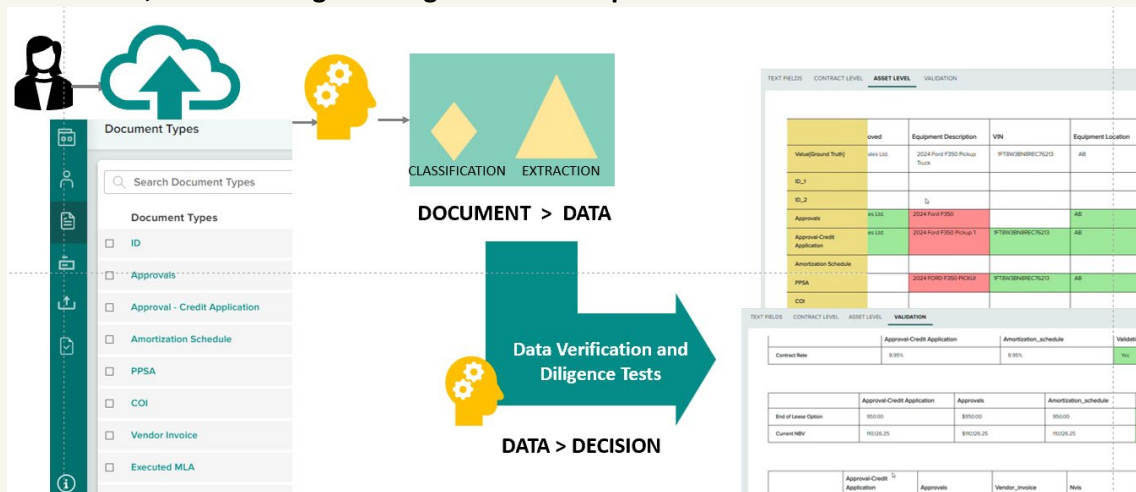
This is what gives us the confidence to **guarantee a payback period of less than three months and ongoing savings of greater than 30%.**

It also makes the operations more agile with ability to scale up and down based on market demand:

Volume Change	Operational Challenges	IntainAI Benefits
Scaling Up	<ul style="list-style-type: none"> - Hiring delays - Step increase in costs 	Zero delay Small increase in costs
Scaling Down	<ul style="list-style-type: none"> - Time lag between revenue reduction and cost reduction - Cost and friction related to redundancies 	Zero delays Costs drop almost in line with volumes

The result is an efficient operation which achieves two conflicting objectives – **reduction in operational cost and operational risk mitigation**.

In case of loan operations, where documents and process flows can vary significantly across asset-classes, IntainAI is flexible to adopt diligence requirements across financing structures and asset-classes, as illustrated in this example where of a **Canadian financier of equipment financing institutions**, is automating due diligence of credit process with IntainAI:



- More than 20 types of documents are uploaded by equipment financing company (ID, Invoice, Amortization Schedule, Credit Application etc.
- More than 100 data points are extracted across these documents
- More than 30 data consistency checks and diligence tests are performed

IntainAI provides an intuitive, no-code solution to set-up data checks and other validation rules:

← QUEUES - AUDIT-WH1									
Queues > Validation > Data									
Data Rules									
Sr. No.	Field	Ground Truth	Doc 1	Doc 2	Doc 3	Add Docs	Format	Req	
1	Obligor	Excel	Dyn Appl	Dyn ID	Dyn Appro		Text	Frst	
2	Coupon	Dyn ID	Dyn PPSA				%	Frst	
3	Amount	Dyn PPSA	Dyn CA	Dyn CA	Dyn CA		Number	Frst	
4	Tenure	Dyn CA	Dyn Appro		Dyn Appro		Number	Frst	
5	Remaining...	Excel	Dyn ID	Dyn Appl				Frst	
6	Tenure	Dyn PPSA	Dyn Appl		Excel			Frst	
7	Amount	Dyn Appl	Dyn CA		Dyn ID			Frst	
8	Coupon	Dyn Appro	Dyn Appl	Dyn Appro	Dyn Appro			Frst	
9	Obligor	Dyn CA	Dyn CA					Frst	
Add Fields									

← QUEUES - AUDIT-WH1									
Queues > Validation > Rules									
Data Rules									
Sr. No.	Check	Syntax							
1	PPSA names and term match contract?	<<SELECT CASE WHEN BOOL_AND(lease_term = registration_>>							
2	Does an amount authorized and requested to pay in the Letter...	<<SELECT CASE WHEN BOOL_AND(wire_amount = doc_ama_>>							
3	Name match between ID and Executed Docs	<<SELECT public.thr_cs_pgrm[ARRAY] 'id':name[ARRAY] e_>>							
4	For Loan: Current OS + Proposed Request = Total Approved Fa...	<<SELECT CASE WHEN LOWER(approvals.asset_type[1]) = ^_>>							
5	expiration_date > executed_date	<<SELECT CASE WHEN BOOL_AND(approval_date > executed_>>							
6	Does Term and Last payment number match?	<<SELECT CASE WHEN BOOL_AND(last_payment_number = r_>>							
7	Is the last payment date <= CURRENT DATE	<<SELECT CASE WHEN 'amortization_schedule'.last_payme_>>							
8	Does paynet had a bankruptcy, suit or judgment?	<<SELECT 'paynet'.bankruptcies' FROM paynet where paynet_>>							
9	Sold to matches business line	<<SELECT public.thr_cs_pgrm[ARRAY] 'vendor_invoice'.sold_>>							
10	Verify that Registration Date on PPSA is <= 15 days after Lease...	<<SELECT CASE WHEN EXISTS (SELECT 1 FROM unnest' pps_>>							

FUTURE READY

CONVERSE WITH DOCUMENTS

(Future Of Document Processing with Generative AI)

Transitioning from traditional multi-step document handling, we use Generative AI for direct human language search and analysis. We invite a select group of Issuers, Diligence Firms, and Verification Agents to **join our Beta for *Converse with Documents* (CwDoc)**, offering early access to latest in Artificial Intelligence.

“Please extract Name, State, Principal, Tenor and Interest Rate and reconcile with the LMS data?”

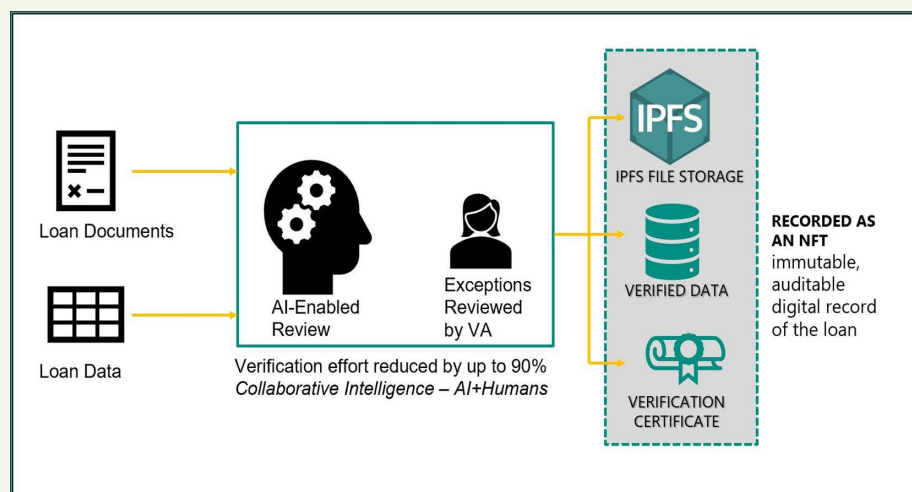
“Check all the agreements for signature and verify those signatures?”

“In the Allonge, extract fields”

Converse with Documents combines standard AI-enabled data extraction and verification, with ad-hoc querying for information across documents. By understanding and analyzing the content of financial documents, it offers summaries, extracts critical data, and even answers your questions directly - all in real-time.

IntainAI not only makes your operations efficient today, we future proof it.

DIGITIZATION TO TOKENIZATION









Intain partners with Custodians and other third party verification agents (VA) who use IntainAI to review and certify loan pool data.

At the Issuer’s discretion, documents are saved in an IPFS folder and a Non-Fungible Token (NFT) for each loan is generated, creating an immutable and record of the loan.

This ensures that trustworthy documents are easily accessible, facilitating efficient resale and secondary transactions.

SUMMARY

	No-code addition of new documents and verification rules
	<i>Collaborative Intelligence</i> with AI-assisted human-in-loop review (4-Eye Check) integrated with the process
	SaaS OR Enterprise deployment options, or a hybrid (document and data storage in client environment, with SaaS for processing)
	Zero Cost Integration with RPA/BPM Software
	ISO 27001:2013 Information Security Standards
	<3-month payback period and usage costs starting at \$5,000 p.m.

[All documents used for the demos have obfuscated/masked data. Hence, all Personally Identifiable Information is either masked or fictitious]