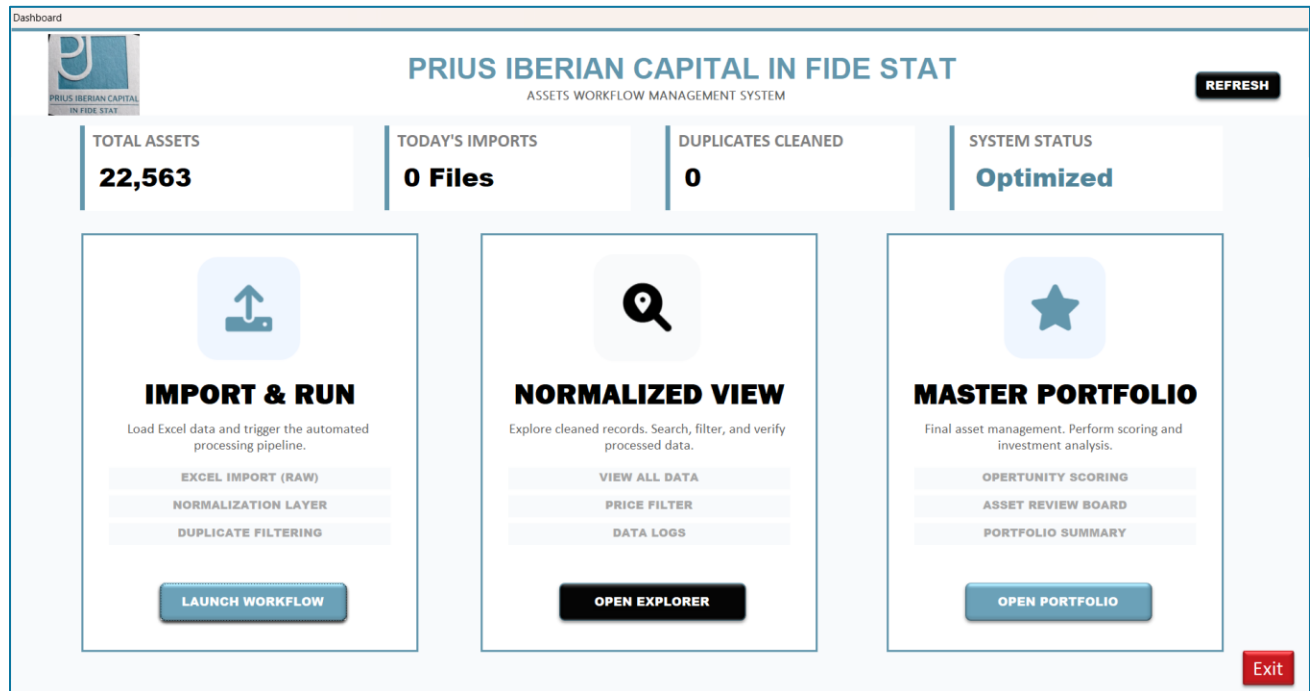


Institutional Assets Workflow Management System

Admyon Systems

Building Smarter Business Solutions



Project Overview

The Assets Workflow Management System is an enterprise-grade data pipeline and portfolio management platform built for institutional real estate investors and capital funds. It acts as a robust ETL (Extract, Transform, Load) engine that ingests chaotic, raw property data from external brokers, normalizes it into structured assets, and applies intelligent scoring to evaluate multi-million euro real estate opportunities.

Business Problem

Institutional funds acquiring large portfolios of Real Estate Owned (REO) properties or Non-Performing Loans (NPLs) receive data in highly unstructured, messy Excel formats (often spanning 60+ unstandardized columns). Attempting to manually clean, verify cadastral references, and detect duplicate properties across a portfolio of 22,000+ assets leads to corrupted databases, miscalculated Gross Book Values (GBV), and severely delayed investment decisions.

Our Solution

Leveraging deep expertise in data science and data engineering, a custom "Processing Center" was engineered to automate the entire data ingestion cycle. The platform utilizes a three-step pipeline: extracting raw Excel data, running a cleaning engine to normalize addresses and pricing, and applying "Fuzzy Logic" and Cadastral Matching to catch duplicates before they enter the master database. Once normalized, the system empowers analysts to review, score, and manage the final assets securely.

Key Features

- Automated 3-Step Data Pipeline (Import, Normalize, Consolidate)
- Fuzzy Logic & Cadastral Reference Duplicate Detection
- Automated Financial Normalization (Price Per M2, Market Price, Loan GBV)
- Investment Scoring & Asset Review Workflows
- Massive Scale Portfolio Management (Handling 22,500+ Active Records)
- Real-Time Pipeline Status & Integrity Dashboards

Technologies Used

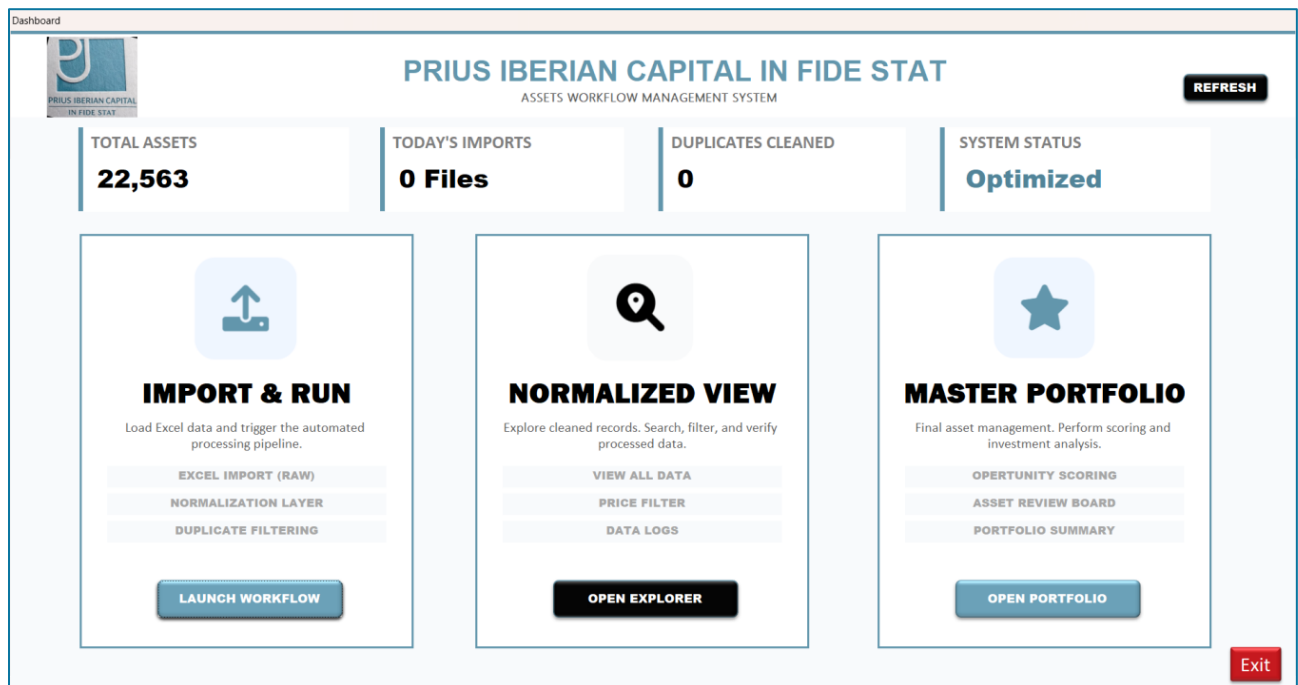
Technology	Used
Microsoft Access	✓
VBA (Visual Basic for Applications)	✓
SQL	✓

System Modules

- Main Workflow Dashboard
- Processing Center (ETL Pipeline Management)
- Normalized Data Explorer
- Master Assets Portfolio
- Asset Details & Scoring Form

Screenshots

Assets Workflow Dashboard



A high-level command center displaying the total asset count and the daily pipeline status, divided into three distinct operational pillars: Import & Run, Normalized View, and Master Portfolio.

Data Pipeline Processing Center

Processing Center

PROCESSING CENTER

DATA PIPELINE MANAGEMENT

REFRESH

Awaiting Normalization

0 Rows

Ready for Master

0 Assets

Last Import File

No file imported

Validation Status

Integrity Passed

STEP 01

EXCEL FILE SELECTION

EXCEL PATH

Browse

IMPORT TO RAW LAYER

STEP 02

CLEAN & NORMALIZE

Transforms F1-F60 raw fields into structured addresses, prices, and cadastral references.

RUN CLEANING ENGINE

VIEW NORMALIZED DATA

STEP 03

MASTER CONSOLIDATION

Final step: Duplicate detection via Cadastral Matching and Fuzzy Logic before pushing to Master.

IMPORT TO RAW LAYER

CLOSE

The technical heart of the application. This module guides data engineers through a structured process of selecting raw Excel files, running the automated cleaning engine, and using fuzzy logic to prevent database duplication.

Normalized Data List

Normalized Data List													
Portfolio_Name	NDG	Asset_UID	Property_Type	Property_Subtype	Province	City_Town	Finca_Parcel	CadastralRef	Surface_m2	Price_Market	Loan_GBV	Auction_Base	Judicial_Statu

An intermediate staging area where transformed data—such as Property Subtypes, Gross Book Value (GBV), and Auction Bases—is structured into clean, readable columns before final consolidation.

Master Assets Directory

Manage Assets Master

<- Back

Manage Master Assets

Search by Cadastral Ref, Address, Status, or Investment Score

Search

Clear

Master ID	Cadastral Ref	Final Address	Final Price	Price Per M2	Review Status	Investment Score	Last Updated	Actions
1	CAD_1	Final Address 1	€51,000.00	€504.95	Pending	2	3/18/2026 4:48:24 AM	View/Edit X
2	CAD_2	Final Address 2	€52,000.00	€509.80	Pending	3	3/18/2026 4:48:24 AM	View/Edit X
3	CAD_3	Final Address 3	€53,000.00	€514.56	Pending	4	3/18/2026 4:48:24 AM	View/Edit X
4	CAD_4	Final Address 4	€54,000.00	€519.23	Pending	1	3/18/2026 4:48:24 AM	View/Edit X
5	CAD_5	Final Address 5	€55,000.00	€523.81	Pending	2	3/18/2026 4:48:24 AM	View/Edit X
8	3452602NJ613550001TB	LOCAL EN CALLE MESTRE LOPEZ DAFONTE 9 PLANTA BAJA DCHA	€9.00	€0.00	Pending		3/19/2026 8:34:03 AM	View/Edit X
9	1949618NJ612550001PH	LOCAL COMERCIAL EN DOLORES,Nº 25, PLANTA BAJA	€59.00	€0.00	Pending		3/19/2026 8:34:03 AM	View/Edit X
10	2649202NJ6124N0019ZY	LOCAL COM EN AVENIDA ESTEIRO, Nº 1 PLT BAJA	€41.00	€0.00	Pending		3/19/2026 8:34:03 AM	View/Edit X
11	4960004NJ6145N0002ZJ	LOCAL COMERCIAL EN C/RUA ESTRADA GANDARA, Nº131	€30.00	€0.00	Pending		3/19/2026 8:34:03 AM	View/Edit X
12	5569080NJ6156N0001EF	LOCAL EN C/ ESTRADA CASTELA Nº 256 PL BJ	€67.00	€0.00	Pending		3/19/2026 8:34:03 AM	View/Edit X
13	6377084NJ6167N00051EQ	LOCAL COMERCIAL PZ ASILO PLANTA PB Nº 1	€49.00	€0.00	Pending		3/19/2026 8:34:03 AM	View/Edit X
14	6377066NJ6167N0003JF	LOCAL COMERCIAL PZ ASILO PLANTA PB Nº 2	€30.00	€0.00	Pending		3/19/2026 8:34:03 AM	View/Edit X
15	6377066NJ6167N0025PU	LOCAL COMERCIAL PZ ASILO PLANTA PB Nº 3	€18.00	€0.00	Pending		3/19/2026 8:34:03 AM	View/Edit X
16	8705507NJ408050002BL	LOCAL COMERCIAL CL RIANXO Nº 13PLTA 0	€59.00	€0.00	Pending		3/19/2026 8:34:03 AM	View/Edit X
17	4019401NH694250007ES	LOCAL Nº1 C/ Dr. JOSE FARIÑA, Nº 6	€40.00	€0.00	Pending		3/19/2026 8:34:03 AM	View/Edit X
18	3296209NH5939N0005WD	LOCAL COMERCIAL EN PLAZA LIANS Nº3, PB- LOCAL E	€319.00	€0.00	Pending		3/19/2026 8:34:03 AM	View/Edit X
19	3296209NH5939N0006EF	LOCAL COMERCIAL EN PLAZA LIANS Nº3, PB- LOCAL F	€0.00	€0.00	Pending		3/19/2026 8:34:03 AM	View/Edit X
20	SIN RC	PLAZA COCHE LA ROMANA C/ CANTUESO, S/N, SOT. 1 NUMERO 37	€4.00	€0.00	Pending		3/19/2026 8:34:10 AM	View/Edit X
21	595704980000020023LX	LOCAL EN AV SANTIAGO Nº 39 PL BAJA LOCAL 8	€38.00	€0.00	Pending		3/19/2026 8:34:03 AM	View/Edit X
22	591322436483198	LOCAL AVDA IRUÑA VELEIA 74, VITORIA	€32.00	€0.00	Pending		3/19/2026 8:34:03 AM	View/Edit X

Total Assets :

22563

The finalized, clean portfolio view managing tens of thousands of properties across various regions. It provides analysts with instant visibility into final prices, price per square meter, and ongoing review statuses.

Asset Details & Investment Scoring

Asset Details Form

<- Back

Master ID

1

Cadastral Ref

CAD_1

Final City

Karachi

Final Province

Sindh

Final Surface

101

Final Price

€51,000.00

Price Per M2

€504.95

Investment Score

2

Final Address

Final Address 1

Review Status

Pending

User Notes

Sample note

Last Updated

3/18/2026 4:48:24 AM

Save & Close

A focused review form where investment analysts can assess individual properties, record geographical data (City/Province), verify the Cadastral Reference, and assign a final Investment Score to drive acquisition strategies.

Business Benefits

- ✓ Saved hundreds of administrative hours by automating the ingestion and transformation of raw, unstructured Excel files
- ✓ Protected database integrity by utilizing fuzzy logic to eliminate duplicate asset acquisitions
- ✓ Accelerated investment decisions by automatically calculating critical metrics like Price Per M2 and GBV
- ✓ Provided complete transparency over the data pipeline with clear "Awaiting Normalization" and "Integrity Passed" statuses
- ✓ Enabled scalable portfolio growth, smoothly handling massive datasets exceeding 22,000 active records

Project Highlights

- Advanced Data Engineering
- Fuzzy Logic Deduplication
- Automated ETL Workflows
- Institutional Finance Logic
- High-Volume Data Handling

Future Enhancements

Future versions of this system may include:

- API integration with national cadastral registries (e.g., Spanish SEC) to auto-verify property boundaries and legal ownership
- Machine Learning (ML) integration for predictive investment scoring based on historical portfolio performance
- Automated spatial mapping to plot the entire 22,000+ asset portfolio on an interactive GIS map
- Direct export of finalized, scored portfolios to secure data rooms for external auditor review

Project Summary

The Institutional Assets Workflow Management System showcases Admyon Systems' exceptional capability to blend robust software development with advanced data science principles. By transforming chaotic external data into a clean, scored, and highly structured master portfolio, this platform equips institutional capital funds with the technological infrastructure required to dominate the real estate investment market.