QUALCO
Data-Driven Decisions Engine

Product Profile

OVERVIEW

FINALLY,
MAKE SENSE OF YOUR DATA

QUALCO Data-Driven Decisions Engine is an all-in-one decision-making platform for the credit management industry. Designed to cover the needs of servicers, banks, utilities and any other organisation managing substantial portfolios of receivables, loans, or other types of debt, QUALCO Data-Driven Decisions Engine is the hub where all your analytics come together.

QUALCO Data-Driven Decisions Engine makes it easy to evolve your data infrastructure and analytics capabilities along with your business needs.

IT HELPS YOU:

› **Organise your data** and maintain a bird's eye view of your portfolio's evolution

› **Ingest, transform and time sequence data** to enable analytical assessment easily and compliantly

› **Apply explainable machine learning algorithms** to identify behaviors and categorise customers into unique sub-populations

› **Drive tailored operational treatments** to the unique segments of customers to maximise performance

› **Shape your portfolio treatment strategy** and translate strategic initiatives into estimates of bottom-line impact

› **Gain clarity into your operations** and optimise day-to-day treatment **decisions**

› **Streamline your underwriting processes** and reduce the time and cost related to underwriting loans

› **Make data-driven investment decisions** and receive valuable and quantifiable results

› **Create comprehensive reporting** based on the analysis and ensure compliance with regulatory reporting requirements

QUALCO Data-Driven Decisions Engine provides you a seamlessly integrated but completely open environment for collecting, verifying and exploiting your data.

IT OFFERS:

› **Data description, onboarding** and quality control with minimal configuration

› **Incremental setup of multiple data transformations**, subsets and data feeds, with automated dependency resolution and data consistency guarantees

› **Automated predictive model generation**, using machine learning technology to minimise human effort

› **Open data model for easy integration** into your existing or future data-driven initiatives

QUALCO Data-Driven Decisions Engine allows you to develop your analytics capabilities by building on earlier results and making experimentation easy, low-priced and risk-free.

IT EMPHASISES ON:

› **Letting machines do what they do best with automation,** either through common-sense automated orchestration of day-to-day tasks or through sophisticated machine learning solutions for predictive modelling.

› **Promoting clarity** by eliminating black-box processes, dataflows, and models; ensuring the results of all analyses can be traced back to the source and providing the data to back them up.

› **Eliminating the effort** needed to maintain and refresh reports, incrementally extending your analytics capabilities by reusing past work as part of new analysis.

KEY FEATURES & DIFFERENTIATORS

QUALCO Data-Driven Decisions Engine's fresh, holistic approach to analytics provides the data, tools, and techniques which promote a common language for analytics throughout your organisation, and

helps to identify, monitor and verify your performance optimisation initiatives. It consists of four main capabilities: **Data warehousing, Descriptive analytics and reporting, Predictive analytics and Prescriptive analytics.**

DATA WAREHOUSING

KEY FEATURES

Data model configuration, data description and master data management

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Data ingestion from multiple sources

KEY DIFFERENTIATORS

QUALCO Data-Driven Decisions Engine offers incremental, on-the-fly configuration of the data model feeds into automatically maintained end-to-end metadata, ensuring that data provenance is evident at every stage of every analysis.

Once the data model has been set up, data ingestion is automatically configured and orchestrated from the metadata. Loaded data can be kept in source format ("schema-on-read") for minimal configuration effort, or transformed to fit your preferred data model.

DESCRIPTIVE ANALYTICS & REPORTING

KEY FEATURES

Data transformation

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Data feeds

KEY DIFFERENTIATORS

QUALCO Data-Driven Decisions Engine Data transformations are fully user-configurable. The system verifies them, resolves dependencies and executes them automatically after the data have been ingested, so they have access to the full data model.

The data model is fully accessible through configurable data feeds with guaranteed data consistency. There is no need to build separate "data marts": Any data subset can be configured as a relational, multidimensional, plain text file or big data feed, and accessed by online and offline querying capabilities.

KEY FEATURES & DIFFERENTIATORS

PREDICTIVE ANALYTICS

KEY FEATURES

Modelling dataset preparation

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Predictive model generation

KEY DIFFERENTIATORS

QUALCO Data-Driven Decisions Engine rather than requiring the user to hand-craft the modelling dataset, it provides configurable general patterns to automatically engineer predictors from every customer's accounts and their evolution over time. Big Data processing is used to apply the patterns with no manual effort.

It automatically builds optimal models for both classification and regression tasks, leveraging Big Data processing to eliminate manual trial and error in the selection of segments and predictors. A commitment to "white box" models ensures the results are comprehensible and easy to trace back to the original data.

PRESCRIPTIVE ANALYTICS

KEY FEATURES

Analytics operationalisation and decision automation

KEY DIFFERENTIATORS

QUALCO Data-Driven Decisions Engine maintains an open data model and multiple data feed options for providing analytics outcomes to human or machine consumers. Its predictive models come with built-in model deployment capabilities to ensure decisions are actionable and can be automated. Predictive and descriptive analytics may be blended to monitor the effectiveness and adoption of the models in production. Integration with other QUALCO solutions is preconfigured.

USE CASES
FOR THE CREDIT MANAGEMENT INDUSTRY

QUALCO Data-Driven Decisions Engine is a robust decision-making tool, applicable for every analytics-driven or analytics-supported function in your organisation. Although any type of business can benefit from the former, below you may find indicative Use Cases from the Credit Management sector, our proven industry of specialisation.

USE CASE | PORTFOLIO UNDERWRITING

AUTOMATE DATA INGESTION AND DUE DILIGENCE

With QUALCO Data-Driven Decisions Engine you can eliminate the time and effort spent just getting access to the data, by using configurable schema to adapt to any portfolio's data model as delivered. You can also build and reuse collections of data quality and business logic checks, at both granular and aggregate levels. Optionally build and reuse a library of transformations to convert any portfolio's data into your preferred data model, to maximise the reuse of all the analytics assets you build within or outside the software.

SEGMENT, STRATIFY AND AGGREGATE DATA

Use QUALCO Data-Driven Decisions Engine configurable multidimensional data repositories to produce standard reports or aggregate data sets that feed directly into your existing per-segment valuation models and business plans. Easily monitor the performance of your models versus actual outcomes, and extract data to update your models' assumptions and parameters.

PRODUCE DATA-DRIVEN VALUATION MODELS

With QUALCO Data-Driven Decisions Engine's documented best-practice approach you can build granular, machine learning-based valuation models that predict a portfolio's recoveries without making assumptions about the behaviour of specific segments. Build a library of such models on top of your preferred data models and reuse them on new portfolios.

USE CASE | RECOVERIES STRATEGY AND PROCESS OPTIMISATION

ESTABLISH GROUND TRUTH

Exploit QUALCO Data-Driven Decisions Engine's data repositories and access to reliable portfolio data, updated daily and reflecting actual operations. Use the full, granular history of the portfolio's evolution, to identify what works and what doesn't. Reach a wide consensus on the above so that the entire organisation remains focused on its goals and on the best ways to reach them.

IDENTIFY INNOVATIVE STRATEGIES

Leverage the predictive modelling capabilities offered by QUALCO Data-Driven Decisions Engine's to sort through the endless array of choices involved in developing your portfolio treatment strategy. From segmentation, to choose of Collection Agencies and communication channels, to repayment plan options, it will identify key drivers of customer behaviour, highlighting problems and opportunities that can inform your strategy, as well as delivering actionable predictions to help with its implementation.

USE CASE — PORTFOLIO OPERATIONS

PROVIDE CLARITY AND TRANSPARENCY

Build any number of predictive models – from the essentials, like probability of default or expected recoveries, to more specialised ones, like the best time to call, the probability to accept a payment plan, most suitable solution and more.

Use the models to identify key characteristics, as well as extract granular predictions, that foresee a portfolio's recoveries without making assumptions about the behaviour of specific segments. Build a library of such models on top of your preferred data models and apply them to new portfolios.

Feed the predictions automatically to your operations systems to automate the corresponding actions within your workflows and monitor the effectiveness of such workflow changes at every stage – from A/B tests to full rollout – and establish an ongoing optimisation loop under your full control.

SHARE INFORMATION WHILE MAINTAINING CONTROL

Make use of the metadata and access control configuration to share reports or results of analyses securely across the organisation or even outside it – with investors, Collection Agencies and other business partners. Establish a common language with all stakeholders and achieve consensus on treatment effectiveness.

USE CASE — INFORMATION MANAGEMENT, RISK MONITORING & REPORTING

ENRICH THE PORTFOLIO DATA MODEL

Use QUALCO Data-Driven Decisions Engine's configurable transformations engine to build, verify, sequence, maintain and reuse calculations, eliminating "data silos" and extensive data model impact analysis.

ENSURE CONSISTENCY

Make sure reports agree with each other; keep track of the provenance, definition, and evolution of any data item throughout your data processing chain.

MAINTAIN AN OPEN DATA ECOSYSTEM

Provide self-service capabilities as well as predefined reporting deliverables through any data feed technology or reporting front-end of your choice. Deal easily with ad hoc requests through reuse of any existing analyses and automate periodic data exchanges with regulators, credit bureaus, and other data consumers.

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