

FRACTALS TERMINOLOGY

This glossary identifies the main component parts of Fractals and provides an introduction to Fractals terminology.

Rules Engine

The component of Fractals which processes **User Rules**.

User Rule – a fraud detection rule which is created by a fraud analyst. Analysts create **User Rules** via a browser-based GUI. Programming and database knowledge are not required. User Rules may operate on data items directly available within a transaction or on derived variables computed from a run of transactions (e.g. rolling averages, counts, velocities).

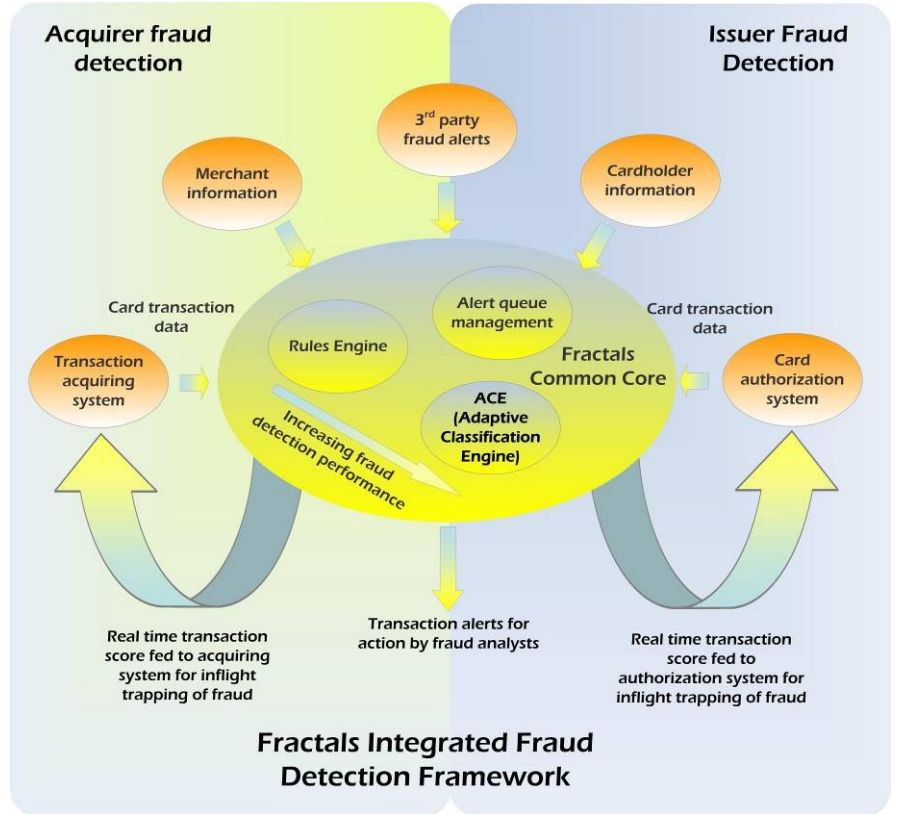
Rule Administration Workbench (RAW) – a browser-based GUI application which enables the creation, testing, evaluation and deployment of **User Rules**.

ACE (Adaptive Classification Engine)

An optional component of Fractals which provides automated, intelligent fraud detection using Bayesian probability methods.

System Strategy – a mathematical algorithm or sub model which forms part of **ACE** and which is targeted at identifying specific fraud patterns or abnormalities in cardholder behaviour.

ACE model – a collection of System Strategies



incorporated in **ACE** for a specific customer. Typically, a customer’s ACE model may contain between 10 and 25 **System Strategies**.

Calibration – the process of tuning the parameters of an **ACE** model to achieve optimal fraud detection performance. Calibration is typically performed prior to a new model being first deployed and then periodically thereafter. Calibration makes use of the **Analysis Database** and can be performed at a customer’s site.

Dynamic calibration – dynamic calibration is the process of dynamically optimizing **System Strategies** as fraudulent transactions are tagged,

leading to improvements in detection performance. **Dynamic Calibration** helps maximise detection performance between ACE model recalibrations.

Alert Queue Management User Rules and **ACE** each alert suspicious transactions. Alert Queue Management allows these alerts to be allocated to queues for fraud analysts to process.

Alert Queue Administration Workbench (AQAW) - a browser-based GUI application which enables easy creation of work queues and the allocation of such queues to users.



Alert processing

User Rules and **ACE** each alert suspicious transactions. Alerts are presented on the **Fraud Analysts Workbench** and are queued as previously configured using the **AQAW**.

Fraud Analysts

Workbench (FAW) – A browser-based GUI application which fraud analysts use to process fraud alerts. Via this GUI, fraud analysts can confirm and tag fraudulent transactions, pend/reactivate processing of a case, freeze alerts, identify the type of fraud and add notes to a fraud case as it is processed.

Tagging – the marking of a transaction as fraudulent on the **Operational Database** by a fraud analyst, using the **FAW**.

Real time authorisation decisioning

When deployed in real time mode, Fractals directly influences the authorisation decision. It can do this by returning to the authorisation system either (a) a fraud score or (b) an actual authorisation decision.

Post Scoring Actions

Workbench (PSAW) – A browser-based GUI application which enables the risk management department to assign, and have a fine degree of control over, authorisation decisions which can be sent to an authorisation system for action in real time.

System Configuration

System Configuration Workbench (SCW) – A browser-based GUI application which enables system parameters to be set by suitably authorised users.

User Configuration Workbench

User Configuration Workbench (UCW) – a browser-based GUI which provides facilities for creating and maintaining user accounts.

Operational Database

An online Oracle database containing all card transactions processed in recent months. Used by both **ACE** and **User Rules** in identifying suspicious transactions.

Analysis Database

An offline copy of the **Operational Database**, extending several (normally 18 to 36) months back in time. Used for calibrating **ACE** models. Also is an invaluable tool for customers for researching card holder behaviour, synthesizing new detection rules and assisting with fraud investigations.

Fractals Management Reporting (FMR)

A preconfigured collection of reports which make use of Jasper Reports/Open Reports.

Acronyms & Definitions

ACE Adaptive Classification Engine
AQAW Alert Queue Admin Workbench
DES Data Encryption Standard
FAW Fraud Analyst Workbench
FMR Fractals Management Reporting
PSAW Post Scoring Actions Workbench
RAW Rule Administration Workbench
SCW System Configuration Workbench
UCW User Configuration Workbench



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