TERADATA REAL WORLD EVIDENCE ANALYTICS ACCELERATOR

Fuzzy Logix in-database Real World Evidence (RWE) analytics revolutionizes all genres of Observational Research including drug re-purposing and drug market stratification.

WHAT DOES TERADATA RWEAA DO?

RWEAA allows a core set of statistical and analytical functions used for data summarization, discovery and predictive modeling to be executed directly within the database environment. DB Lytix™ includes predictive modeling algorithms as well as the preliminary tasks of optional sampling, statistical transformations, variable selection and dimension reduction to derive better models.

WHY IS RWEAA IMPORTANT?

It will help RWE analysts, such as Epidemiologists, identify key RWE analytics, and standardize and share those analytics in an efficient manner within a creative governance framework.

WHO IS RWEAA DESIGNED FOR?

RWEAA is specifically for RWE analysts who need to:

~ Rapidly identify hypotheses for statistical analyses through visualization.

~ Create cohorts for statistical analyses based on the visual analyses.

~ Quickly test hypotheses on these cohorts with minimum IT involvement.

It is designed for analytic professionals (data miners, statisticians and analysts) to build predictive and descriptive models on the latest set of data residing in the database, enabling them to leverage their statistical analytics skills and produce results more quickly.

There are many reasons that in-database processing is at the forefront of decision makers' minds. IT directors recognize that the cost of integrating and managing data across the enterprise is growing. Their staff members are spending increasing amounts of time preparing and transferring data, often duplicating efforts, rather than using an integrated environment to build effective predictive analytical models that could provide deeper insights for the organization. In addition, scattered data marts create maintenance headaches and analytic professionals are restricted to using small sets of data or data that is out-of-date.

For their part, RWE analysts become frustrated when they cannot get timely answers, and they recognize that lengthy, inefficient analytical model development is negatively impacting the organization, including the inability to reliably detect new adverse events with minimum false positives or drug re-purposing.

Teradata® and Fuzzy Logix™ provide organizations with increased productivity, lower operating costs and a sustainable competitive advantage. How?

Real World Evidence Analytics Accelerator (RWEAA) enables the execution of key analytical tasks within a Teradata database or data warehouse. This type of in-database processing reduces the time needed to build, execute and deploy powerful predictive models. It also increases the utilization of the enterprise data warehouse or relational database to reduce costs and improve data governance that is required for successful analytic applications.

KEY BENEFITS

~ Accelerate "fail fast" analysis by reducing data movement and speed up data visualization using in-database analytics.

~ Eliminate the need to move massive data sets between a data warehouse and the analytics environment. Deploying data preparation tasks and analytics within the same data warehouse minimizes data replication, improves network bandwidth use and streamlines analytical processing tasks.

~ Improve accuracy and achieve better outcomes using more data points and sophisticated analytical models. The massively parallel architecture offered by data warehouses is useful for processing larger, more complex information sets. To take advantage of this capability, Fuzzy Logix designed their algorithms to leverage all available parallelism. Now modelers can easily add new sets of variables if model performance degrades or changes are needed for business reasons. In addition, in-database analytics offer high scalability and can be used to analyze very large sets of data quickly.

KEY FEATURES

STATISTICAL AND ANALYTICAL FUNCTIONS ENABLED FOR IN-DATABASE PROCESSING

Mathematical Functions Include:

~ Bessel

~ Hyperbolic

~ Gamma

~ Least Common Multiple

~ Cubic Spline

Basic Statistics Include:

~ Correlation

~ Descriptive Statistics

Sparse Statistics Include:

~ Variance

~ Kurtosis

Hypothesis Testing Includes:

~ Friedman

~ Kruskal Wallis

~ One & two sample tests

~ F Critical Value

~ Chi Square Test

Simulation Includes:

~ Binomial Distribution

~ Gamma Distribution

~ Logistic Distribution

~ Poisson Distribution

Data Mining:

~ Matchit

~ Naive Bayesian

~ Euclidean Distance

~ Decision Tree

~ Achieve faster results by building, updating and deploying models more quickly. RWEAA enables analytical processing to be pushed down to the data warehouse, shortening the time needed to build and deploy predictive models while reducing latency and complexity associated with the model development process. Analytic professionals have fast access to up-to-date, consistent data and increased processing power. This provides better insights for improved business decision making.

~ Enhance productivity of analytic teams. In-database analytics helps modelers, data miners and analysts focus on developing high-value analytical modeling tasks instead of spending time consolidating and preparing data.

OFFER OVERVIEW

RWEAA provides a core set of statistical and analytical functions for in-database processing. The critical data-intensive computations for each analysis are moved inside the Teradata database.

The included in-database functions are commonly used to execute the following model development steps inside the database:

~ Optional sampling (e.g., oversampling, rare target events and stratified sampling)

~ Data summarization and discovery

~ Time series data aggregation, including trend and seasonal analysis

~ Binning interval predictors

~ Variable selection and dimension reduction

~ Predictive modeling (e.g., multiple linear and logistic regression)

~ Scoring of linear models

Teradata offers several high performance computing options for processing large, complex sets of data using high-powered analytics that take into consideration the needs of both IT and business users to provide the right amount of computing power to solve unique customer issues.

THE POWER OF PARTNERSHIP

For more information on how Teradata and Fuzzy Logix can help your business contact your local Teradata representative or visit **Teradata.com**.