

ABOUT MATRIX-DATA'S SOFTWARE & TECHNOLOGY

Aruna FastPath is the database powerhouse deployed by Matrix-Data to manage and resolve numerous database challenges for our clients, ranging from rapid system integration, to high-speed query of large data sets.

FastPath allows dissimilar systems to be joined quickly, cleaned and accelerated. User reports and queries that previously took hours to run can typically be answered in seconds.

Complex, ad-hoc queries on large volumes of data can easily be run, allowing access to "out of the box" business intelligence for users. For the business user this means information on demand, whenever it is needed.

Further information can be found online at www.arunasoftware.com

Aruna FastPath™: High performance database integration & query without compromise.

Aruna FastPath is an advanced database technology that dramatically increases the speed of database integration and SQL queries through its unique and patented algorithms. Unlike traditional systems, which need to selectively tune data to improve performance, *FastPath* systematically organises 100% of the source data as it is being loaded into its compressed and self-contained QDS (Query Data Store). As a result, *FastPath* achieves and maintains outstanding analytical query performance with absolutely no manual tuning, can query across database systems "virtually" and can deliver results back to the business a few hours after implementation.

FastPath QDS builder

FastPath offers a simple 'point and click' interface to load data from multiple stores including relational, legacy and text sources. By default, all data is automatically optimised in a single QDS build. An administrator can completely control the automated build process, including controls such as "phonetic matching", smart "inherited" indexes and advanced join features.

The QDS is capable of loading over 10GB of raw data per hour. This highly compressed index is a mirror of the original databases that includes the metadata, data image and unique Index. Each database that is read into the QDS retains all its attributes and relationships and is visible in its entirety. There is no pre-aggregation during the build process so it reflects a true, compressed duplicate of each original data source. This makes complete data audit trails easy for financial information databases. The unique index organises 100% of the source data, allowing extremely fast data analysis of simple and complex SQL reports and queries.

QDS structure

FastPath relies on "declared expressions" to manipulate, store and join data from different systems. These expressions efficiently exploit text, numeric, date/time, constant width, regular expression and phonetic principles. In this way, different representations of the same information can be standardised, and string patterns found and matched. For example, different data sources may have variable encodings for gender: e.g. male-female-unknown, M-F-U, 1-2-3. *FastPath* applies automated expressions to standardise data for meaningful information retrieval and joining across multiple sources.

Aruna query processor

The proprietary algorithms of the *FastPath* Query Processor (QP) efficiently utilise the QDS for consistently fast query responses. To further enhance performance, the *FastPath* QP includes a state-of-the-art SQL rewriter and a cost-based optimiser. The result is astonishing query performance over disparate, large and complex databases.