

Data Quality Management

Working with our clients, we have realised, that they will only be able to provide competitive, high quality services to their customers, and manage their risks on the appropriate level at the same time, if they base their decisions on data acquired from high quality and accurate databases. That is why we have started our Data Quality Management service line based on our database cleansing engine called “CodeServer”, developed by our own experts.

Our Core Services

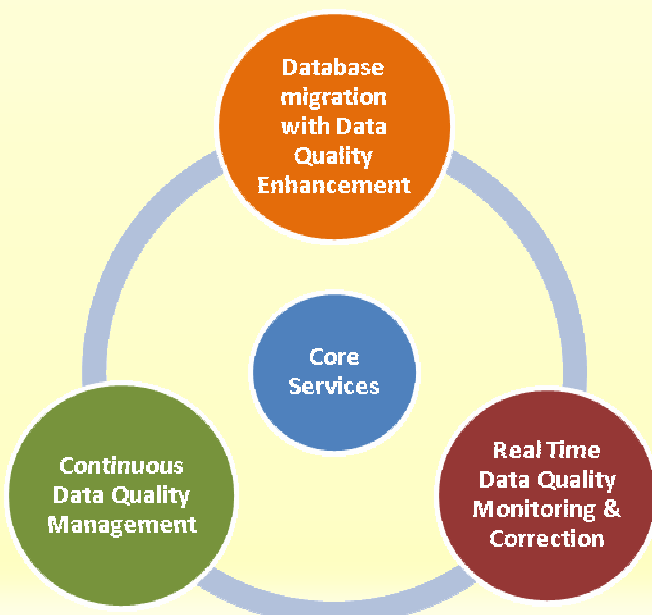
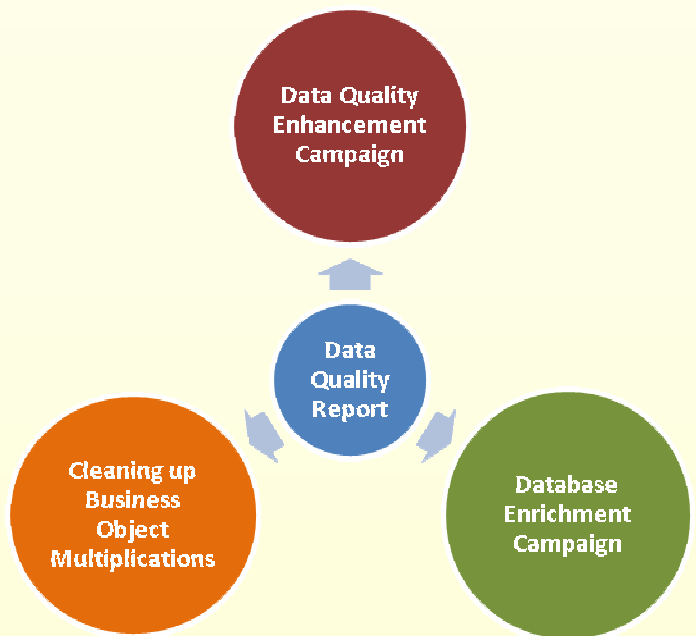
Data Quality Report: In setting up a baseline, we perform an automated analysis on your appointed databases and provide a Data Quality Report.

Data Quality Enhancement Campaign: Based on the Data Quality Report, we provide suggestions for Automated Database Cleansing. Once they are approved, we run an Automated Database Cleansing on your specific databases.

Database Enrichment Campaign: Based on third-party databases (i.e.: official address, tax or insurance database, real estate registry) we are able to fill the empty or incorrect fields in your databases using our CodeServer engine.

Cleaning up Business Object Multiplications: In large databases, multiple records may be piled up, which represent the same business object (i.e. client “John Smith”) and should occur only once in the given database. We are able to set up our CodeServer to identify these records with a high probability. After the approval of the suggested algorithm, the databases will be repaired automatically .

Technology Supported Manual Database Cleansing: We are prepared to support the further necessary manual database cleansing processes with our CodeServer engine.



Our Complex Services

Database migration with Data Quality Enhancement: Sometimes data migration to the new systems happens with simple “data dumping” – with no regards to data correctness and integrity, and further inheriting database errors. According to the appropriate business rules and logic, our CodeServer can be configured to provide data quality control or even enhancement during the data migration process.

Continuous Data Quality Management: Applying scanning and cleansing algorithms time-to-time (i.e.: quarterly) we are able to identify common data entry errors. Feeding this information back to the organisation, a high degree of data quality improvement can be maintained and the achieved level can be stabilised for a longer term.

Real Time Data Quality Monitoring & Correction: We are able to build our CodeServer into your IT systems’ data entry processes and provide real time data quality monitoring and correction services, by taking control over a false data entry.

Our Technology

We have designed and developed a high performance software engine, called "CodeServer" that enables us to provide Data Quality Management Services very effectively even on larger (several-million-record) databases. We maintain and develop two technology lines of our CodeServer: one is optimised to the ORACLE, the second is to the SQL Server environment. It has a user-friendly user interface that makes it easy to define rules and relations among specific data records and data fields. Once the rules are defined, the CodeServer is ready to scan the whole database to identify improper multiplications and errors, and generate easy-to-read Error lists or even clean them up in an automated way.

Associated Case Studies

Data Quality Enhancement Budapest Bank (GE Money)

In 2007 Budapest Bank decided to implement a central collateral database to meet Basel II requirements in this field. At the time, collateral data were registered in 6-7 different systems, and several Excel databases. Our task was to prepare these databases for the migration into the central databases. Therefore we had to analyse the data, identify incorrect or missing information and correct the errors / complete the records using an automated method. We defined 600-800 rules and relationships among 130 data elements and configured our CodeServer to perform the necessary scan and amendments on the databases. Executing the program, we identified more than 20,000 false records, each containing 2-3 errors on average. A larger share could be corrected automatically, the rest needed to be corrected manually, which work-phase was also supported by the CodeServer, providing intelligent data input interface to the users.

Manual Database Cleansing ERSTE Bank Hungary ZRt.

In 2006 ERSTE Bank realised that its collateral database related to corporate loans is inadequate to enable the Basel II approach internal capital adequacy assessment. At the time, most of the administration was paper-based and only a small section of the collateral-related data was stored in the IT systems, and usually in an unsuitable way. We configured our CodeServer engine to provide an intelligent data entry user interface for the manual database cleansing and enrichment, ensuring immediate feedback to the user: what data are missing or incorrect and how it should be corrected. More than 12,000 loans' collaterals were entered in about 4 months by the administrative staff and more than 25,000 database errors were corrected by the automated monitoring service, provided by our CodeServer. As soon as the error rate reached the preliminary agreed level, we loaded the database into the production system over one night.

Client Database Migration ERSTE Bank Hungary ZRt.

In 2004 ERSTE Bank and Postabank merged. Clarity Consulting supported the IT infrastructure merge of the two banks. One of our tasks was to migrate Postabank's core banking system's client databases to ERSTE Bank's Symbols system. We migrated more than 900,000 customers' data records from 4 systems. During the process we had to perform error detection and correction, fill as much empty database fields as possible based on the business logic, and also identify the identical clients in different databases and merge their data. We found 230,000 multiplications and managed to prevent storing the same client more than one occurrence in Symbols. One of the biggest challenges was that the migration had to take place on a single week-end in order to avoid banking operation interruption. Therefore we had to set up our CodeServer in advance in a way to ensure its capability of making real-time decisions during the migration, automatically on its own.

Further references

Client database quality assessment at Invitel ZRt.

National Social Security database – 12 million individuals' legal status checking, data cleansing algorithm development

Basel II relevant data quality survey and assessment at Raiffeisen Hungary.

National Social Security database and National Tax Office database monthly cross checking (3-4 million records / month)

Manual data entry support and Database Enrichment at ERSTE Bank in Anti Money Laundering data collection campaign

"We needed algorithms adequate to make decisions instead of us with nearly 100% confidence. Clarity Consulting was able to deliver them, always on time."

Ms. Gyorgyi Agardi, director, Erste Bank

"Clarity Consulting provided rather useful results within short time thanks to the very powerful data analysing tools that they had developed and applied."

Mr. Balazs Nadori, project manager, Invitel ZRt.

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