



FiRe Files to Relational Database

- → **FiRe** is a tool-based technology for automated migration of data pools from legacy systems into relational databases.
- → FiRe combines scientific know-how with competence gained from successful migration projects.
- > FiRe supports all components of a migration (data, scheme and program migration).
- → **FiRe** allows redundance-free saving of the data, secures their integrity and preserves the application performance.

A professional database system must be built within the framework of a legacy migration. For this purpose, databases and/or files of different structuring must be imported into modern databases. By deploying our tool-based FiRe technology (Files to Relational Database), we bring these requirements to completion quickly, reliably and in a future-proof order. This is demonstrated by many of our successfully completed migration projects.

Migration Paths between the Legacy and Target System

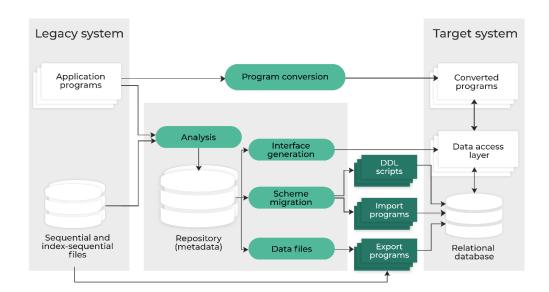
Legacy system	Target system
Sequential and index-sequential files	Relational database systems
Network, hierarchical and relational database systems	(Oracle, Db2, Microsoft SQL Server,)
Redundancies in the data pool	Cleansed and harmonised data
Inconsistent data scheme	Redundance-free scheme definition
Proprietary program access to data	Embedded SQL, dynamic SQL (Oracle, Db2, Microsoft SQL Server,)

Features

- Automated migration of different data formats (databases, files)
- Merging and harmonising of information
- Cleansing of duplicates
- Checking contents for correctness, plausibility and integrity



FiRe Technology



- **ANALYSIS:** Starting point of a data migration is the tool-based analysis of the current data pool on the legacy system. For this, information on structuring of the data sets from the application programs and information from the files are merged and harmonised in a repository (metadata).
- **SCHEME MIGRATION:** Using the file information gained through the analysis, the database scheme of the target system is created, where the file-oriented data management of the legacy system is mapped to a relational data management in the target system. The result is a set of table descriptions which serves as the basis for generating DDL scripts.
- **INTERFACE GENERATION:** File information in the converted programs of the target system is accessed by logical file operations like OPEN, READ, WRITE, However, the data is stored in a relational database system and accessed by SQL operations. The communication between the two layers is assumed by a so-called "Data Access Layer" which is automatically generated with the information from the metadata (interface generation).
- **PROGRAM CONVERSION:** The converted programs in the target system use the logical file operations like OPEN, READ, WRITE etc. These are inserted into the programs of the target system in the form of method calls in the course of the program conversion with CoJaC.
- MIGRATION OF DATA POOLS: Export programs (reading of data from the files on the legacy system) and import programs (writing data in the relational tables of the target system) are generated from the metadata of the repository and the data relating to the scheme migration. The data gets harmonised in the course of the data migration process. In addition, necessary EBCDIC-ASCII conversions are taken into account. This technology requires a mature rollback concept which, in extreme cases, transfers data back into the original legacy system.

Please contact us!