tcVISION for Sequential Files - The right data in the right place at the right time.

The Challenge

In the digital age BigData and Analytics are widely being talked about. The efficient integration of mainframe data has multiple reasons: BigData, workload relief of the mainframe to reduce costs, application modernization together with data and application migrations without a "Big Bang". Declining mainframe knowhow, databases and their complexities grown over decades - these are big challenges when it comes to data exchange in a mainframe environment.

Many corporations used FTP or other file transfer solutions to resolve the data exchange problem. This is extremely CPU intensive, insecure and creates high costs for the distribution of mass data. Nowadays these solutions are neither acceptable nor practicable anymore. Not only because of the costs, but also because of limited batch windows.

The Solution

There is a better solution to manage and master this complex and ambitious task in an easy, fast, reliable and efficient way: tcVISION for the timely, bidirectional data synchronization and replication based on changed data. With tcVISION the data exchange turns into a single-step operation. No middleware or message queueing is required. The data is exchanged in raw format, compressed and reduced to the processing of changed data.

Benefits

- The focus is on changed data (Changed Data Capture), so the data transfer volume is reduced to a minimum.
- Highest topicality through continuous real-time processing
- Cost reduction through relocation of data exchange processes from the mainframe to cost efficient platforms (e.g. UNIX)
- Cost reduction through compressed data transfers
- High integration potential of the tcVISION solution: Multiple Change Data Capture technologies can be used depending on change frequencies and latency times
- Intuitive and convenient data mapping offers comprehensive functions for data type conversions and data manipulations up to a complete change of the data model. Data mapping includes the interpretation of multiple record types and tables (OCCURS processing).
- Prevention of mainframe costs: An integrated data repository creates transparency for all available data.
- No additional middleware required – elimination of costs and implementation efforts – efficient transport layer
- Elimination of programming efforts for data transfers – no requirement to prepare data for an FTP transfer
- Comprehensive conversion of historically developed mainframe data structures
- Integrated pooling/streaming processes avoid programming efforts and message queueing to prevent data loss because of unavailability of the target system or delays.
- Processes which have proven to work in practice are available to restart a replication after system failures (database errors, transmission errors, etc.).
- Support of multiple input sources: Seq. files, results of batch runs, tape files, POWER queues, VSAM-ESDS, and much more

Application Examples

- Synchronization of data in a heterogeneous system environment consisting of a mainframe and distributed systems
- Gradual migration of data and applications in heterogeneous system environments
- Mainframe relief: Transfer of mainframe data to distributed systems or to Hadoop Data Lakes
- ETL of mainframe data for Data Warehousing, Business Intelligence, Analytics & BigData
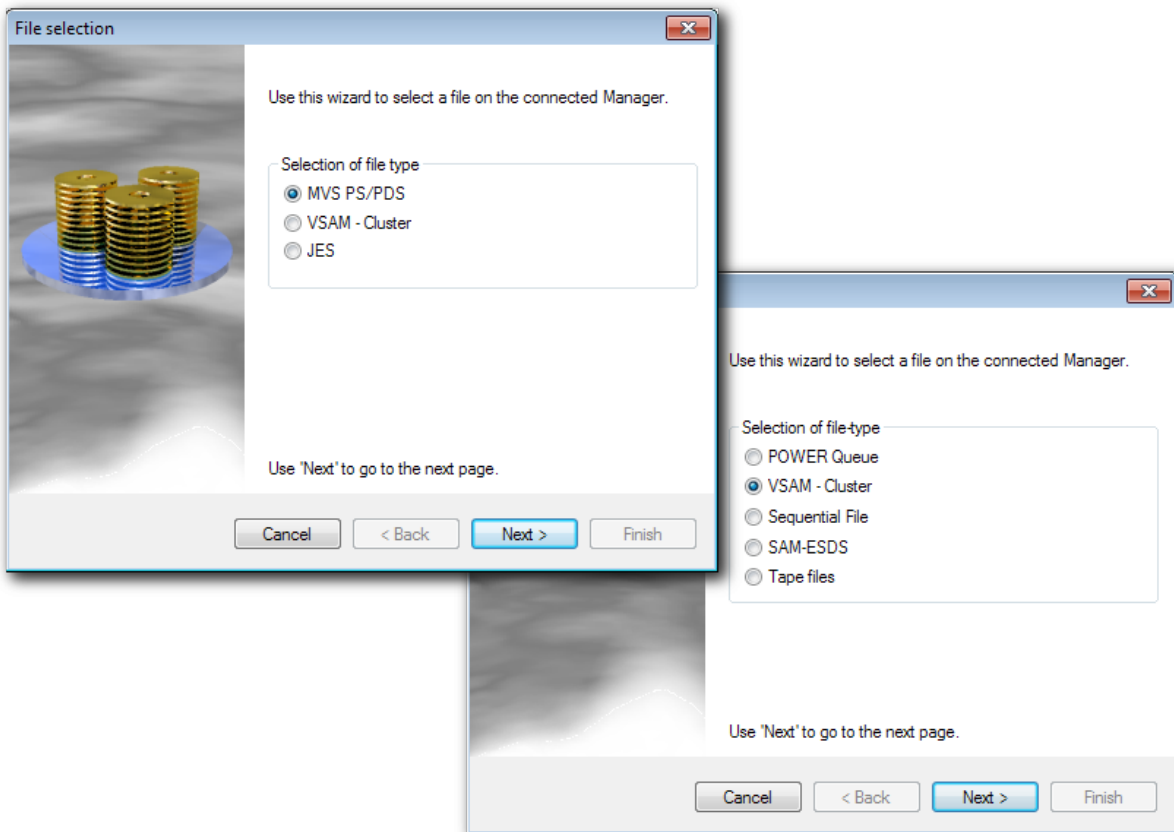
File selection is supported for all files that can be used for transfer by tcVISION. Together with the intuitive mapping, comprehensive possibilities are offered for data modeling and a variety of integrated functions for the transformation of data types between sequential files and external databases. The support of repeating fields, record types and data filtering is no problem for tcVISION.

tcVISION for Sequential Files - Facts

- ✔ Available for z/OS and z/VSE
- ✔ Support of Change Data Capture methods:
    - Batch Compare
    - Loads
- ✔ Support of fixed and variable record length
- ✔ Support of all data types (character, decimal, packed, zoned, binary, bit-pattern)
- ✔ Flexible support of fixed and variable groups, tables/arrays
- ✔ Flexible support of multiple different record types
- ✔ Comprehensive mapping functions for the creation of structure information for all data
- ✔ Central, relational repository for storage of the metadata, linkage and processing rules
- ✔ No additional middleware required
- ✔ No message queueing required
- ✔ Compressed and efficient data transfer
- ✔ Restart/recovery guaranteed after system failures
- ✔ Support of unidirectional, bidirectional, and 1:1, 1:n, n:1 and n:n replications
- ✔ Convenient single-step operations. Capturing of change data – transformation of data – application to target systems
- ✔ Integrated workload balancing to shift tasks like processing and conversion to more cost-effective systems (e.g. from mainframe to UNIX/Linux).
- ✔ Parallelization of load processes in order to realize real low latency synchronization solutions.
- ✔ Integrated features for direct application of data into target systems
- ✔ Powerful load functions to transfer and apply bulk data
- ✔ Integrated pooling and streaming processes prevent data loss if the target cannot receive data or receives slower than the source is sending.
- ✔ Built-in key management for non-indexed data
- ✔ Extensive monitoring, logging and integrated alert notification
- ✔ Easy filtering of data through rules definition
- ✔ Transfer of MULTI-VOLUME files