



# tcVISION

Release Note  
Version 4

Last Review: 2010-06-28

## 1. Data Sources

In addition to the existing mainframe data sources the change data capture functionality has been extended to also support data sources like *DB2 LUW*, *Oracle* and *MS-SQL-Server* (see footnote 3). Also a new collector type of 'IMS-Batch' allows the capturing of changes performed by IMS-Batch applications for z/OS. This type has already been available for VSE systems. The current list of supported data sources is:

Name	Bulktransfer	(Near-) Real-time	Log-Files	Batch-Compare
VSAM FCT	✓	✓	✓	✓
VSAM Batch	✓	✓	✓	✓
DATACOM/DB	✓	✓	✓	✓
IDMS/DB	✓	✓	✓	✓
IDMS/Batch	✓	✓		
DB2 for VSE	✓	✓	✓	✓
DB2 for VM	✓	✓	✓	✓
DB2 for z/OS	✓	✓	✓	✓
DB2 LUW	✓	✓	✓	✓
Oracle <sup>2</sup>	✓	✓	✓	✓
MS-SQL Server <sup>3</sup>	✓	✓	✓	✓
ADABAS	✓	✓	✓	✓
IMS/DB	✓	✓	✓	✓
DL/I	✓	✓	✓	✓



Name	TCP/IP Direct	Loader	API	ODBC
MS-ACCESS				✓
File output	direct			
MS-SQL		✓	✓	✓
DB2 for VSE	✓	✓		✓
DB2 for VM	✓	✓		✓
DB2 for z/OS	✓	✓		✓
DB2 LUW	✓	✓		✓
Oracle		✓	✓	✓
mySQL				✓
General ODBC				✓
Websphere MQ			✓	

Based upon the data source the primary replication method can be selected depending upon the local requirements.

The replication of fields with a data type of DECFLOAT (DB2 Version 9) is supported.

For ADABAS replication file passwords and Predict passwords are supported. Also encrypted ADABAS files are supported and a 'Cipher Code' can be used.

## 2. Repository for Meta data

The meta data that is used by tcVISION during a replication is stored in a database of your choice. Metadata for *input* and for *output* are part of the repository.

This requires that entries must be available in the repository for *every* replication.

Complex replication scenarios can be defined. Repository highlights are::

- Various replication scenarios are possible: 1:1, 1:n, n:1 and n:n .

<sup>1</sup> only MVS, OS/390, z/OS

<sup>2</sup> for Windows, UNIX, LINUX

<sup>3</sup> for SQL Server from 2005; available Q4 2010

- Adjunction- and Combination-Replication has been incorporated to join different data sources that are only logically connected.
- A Data-Warehouse-Replication has been incorporated that provides historical auditing of all changes.
- Definition display of replication paths is performed using a graphical user interface.
- Data content based replication can be implemented. Conditions can be numeric comparisons or regular expressions.
- The data processing during the replication can be performed in multiple ways (Calculations, character string functions, Lookup functions, Exit calls).
- Default values for targets can be defined to avoid NULL values.

Data specific information like history information for DB2 and ORACLE or alternate indexes for DL/I can be easily maintained.

The tcVISION repository provides historical auditing functions.

The database used for the tcVISION repository needs not to be UNICODE eligible, even when standard values or compare data can be specified for UNICODE fields.

### 3. Manager

The Workstation-Manager can now directly connect to DB2 systems. This allows for definitions of 'local' DB2 instances. Communication to these instances is based upon DRDA, hence it is not required to have these resources locally.

The Workstation-Manager supports the import of meta data for the repository directly from DB2 LUW, MSSQL, ODBC and ORACLE.

During the determination of the start parameter for a workstation Manager the active environment is returned. This eases the problem determination, i.e. for missing libraries under Linux and UNIX.

### 4. Data processing

The creation of loader control files is performed in the same step as the creation of loader data. This ensures a full match of control information with loader data and guarantees an error free execution of the loader.

Exits that have been part of a script can now be stored in the repository for multiple use. This reduces the maintenance efforts.

A new file output option (NO\_OVERWRITE) creates output data only if they don't already exist.

Bound parameters for a Bulk-Transfer are now "field"-bound. This increases performance of mass data transfers for all data sources that support this feature.

A 'Auto value' field can be used to automatically create a unique key for the target table, even when there is no unique key for the input table.

ADABAS DBNR and FNR greater than 255 are supported.

An optimized processing for ORACLE has been implemented (i.e. TRUNCATE instead of DELETE FROM, transfer independent upon environment variable NLS\_LANG) to increase performance and maintainability.

IMS Log data can now be processed on the work station after a transfer (i.e. FTP).

The new feature of writing the internal transport format as compressed data to files and sockets will increase the transfer rate significantly, especially on connections using a limited band width.

Using the current version it will be possible to propagate DL/I segments with variable length.

The processing allows to enter a generic file pattern for input files. Using this feature directories containing temporary files can be processed by *only one script*.

Using more than one filename for output files allows an easy way to duplicate (identical) data.

## 5. Control Board

A new graphical user interface has been developed for the maintenance of the tcVISION Repository. The strength of the interface is to intuitively assist in the creation and maintenance of replication paths.

Backup- and Restore-functions for the repository have been implemented and an automatic consistency check is performed.

A new Export component of the repository can be used to easily create target tables based upon the tables defined in the repository.

Scripts can be grouped together and can be displayed in a tree view.

A new EXPLAIN facility has been incorporated to explain return codes and error messages in a way that users can easily evaluate error situations. For error messages that contain a variable return code (i.e. DB2 messages) some of the possible errors are explained with hints about the resolution of the error.

The dialog for the execution of SQL statements (RUN SQL) has been extended to support a history of up to 10 statements.

New wizards have been incorporated to specify the location of directories for log files on work stations.

A proxy server can now be specified for a web based access. This access is necessary to retrieve code snippets, web support etc. Also proxy servers that require authentication are supported.

## 6. General

New functions in tcScript allow the controlling of running script tasks and the investigation of the processing status.

The implementation of performance counters can be used to control and evaluate the performance of a running task. The times measured can be divided into processing time, time for input and output operations and idle time.

Using the new 'audit log' the complete processing can be monitored on a LUW base.

New functions in the scheduling feature allow to start a processing task dependent of the day of week or month.