ETL by experts for experts

E&P datasheet

Transformation Manager software

Transformation Manager is a development toolkit used by software vendors, operators and our own consultants to build data movement components more efficiently. The software reduces the time, cost and risk of developing tailored data movement products.

A metadata-driven code generator, Transformation Manager provides users with the ability to generate lightweight, easy-to-deploy code. It combines a Graphical User Interface with a statement-driven mapping language.

Transformation Manager derives metadata from the elements, attributes and relationships in a source and target model. The software uses rules specified in Simple Mapping Language (SML), which is specifically designed for implementing data transformation projects, to generate Java code.

Transformation Manager

Build technical data movement components for:

- ✓ Data loaders
- ✓ Connectors
- ✓ Interfaces
- ✓ Plug-ins
- ✓ Migration projects

Software architecture

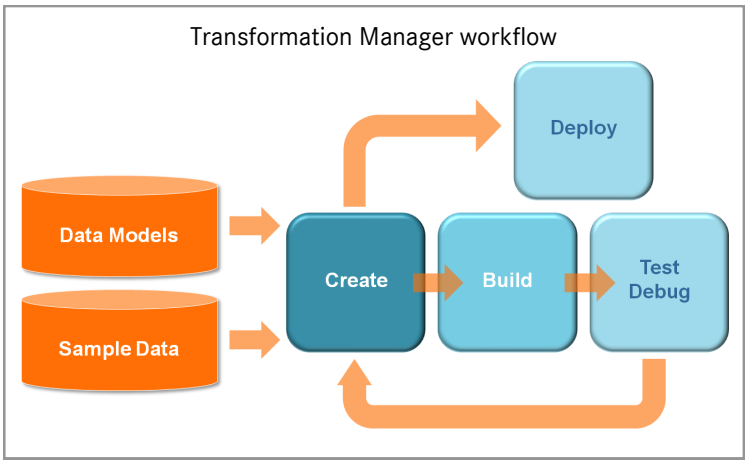
Transformation Manager stores models and transforms in a metadata text repository. The repository is fully compatible with version control systems, and provides an ideal multi-user environment for sharing and developing a project. The flexibility of Transformation Manager enables developers to apply any source control software against this repository to manage transformations. All Transformation Manager's design tools share the repository, creating a streamlined process. The diagram below shows Transformation manager's workflow.

TM Designer

TM Designer is used to develop, debug and maintain data transformation projects. The tool is a modern IDE with a range of features for effective transformation development.

TM Migrator

The Migrator has a user-friendly graphical interface in which to set up and run data transformation projects. Typically, it is used during development to run a project using sample data and to view the results.

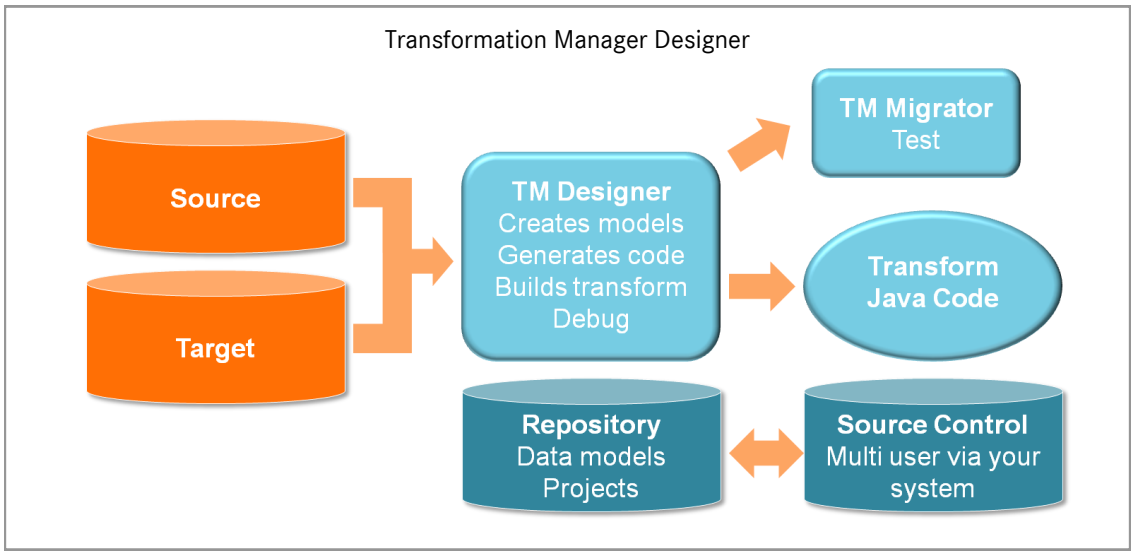


info@etlsolutions.com
+44 (0)1248 675 070

Flexible tools

Repository management

Store and manage multiple projects, imported models, transform logic and SML procedures in the repository, increasing efficiency and reducing workload. The diagram below shows how the source and target models are loaded into TM Designer:



Model editing

Add, modify or remove relationships, elements and attributes to simplify the mapping process and manage change.

Built-in functions

Use Transformation Manager's wide range of different functions, including string manipulation, logging, error handling and runtime information, to build a project faster.

Debugger

Find and fix errors in a project using the debugger. It provides the ability to step through code line-by-line and to use breakpoints to pause execution at a specific point.

Data viewer

View source and target data via the models. This reduces risk and provides the ability to relationally follow individual rows of data from within the tool.

Lookup manager

The lookup manager provides straightforward access to reference data within source, target or external data stores, allowing enhancement or verification of migration data.

Identification management

Adjust target keys using this functionality, enabling population of target data using natural or surrogate keys.

Modular mapping

Define mapping rules in groups relating to source and target objects, creating clearly defined business mapping logic. Combined with relational handling, this enables full migration structures to be migrated cleanly and simply, with no need to worry about foreign keys.

Efficient processes

Model import

A simple process which automatically imports external models such as database schemas, XML schemas, Excel workbooks and more.

SML procedure management

Supports code re-use through SML procedures, increasing efficiency and modularity.

User defined function management

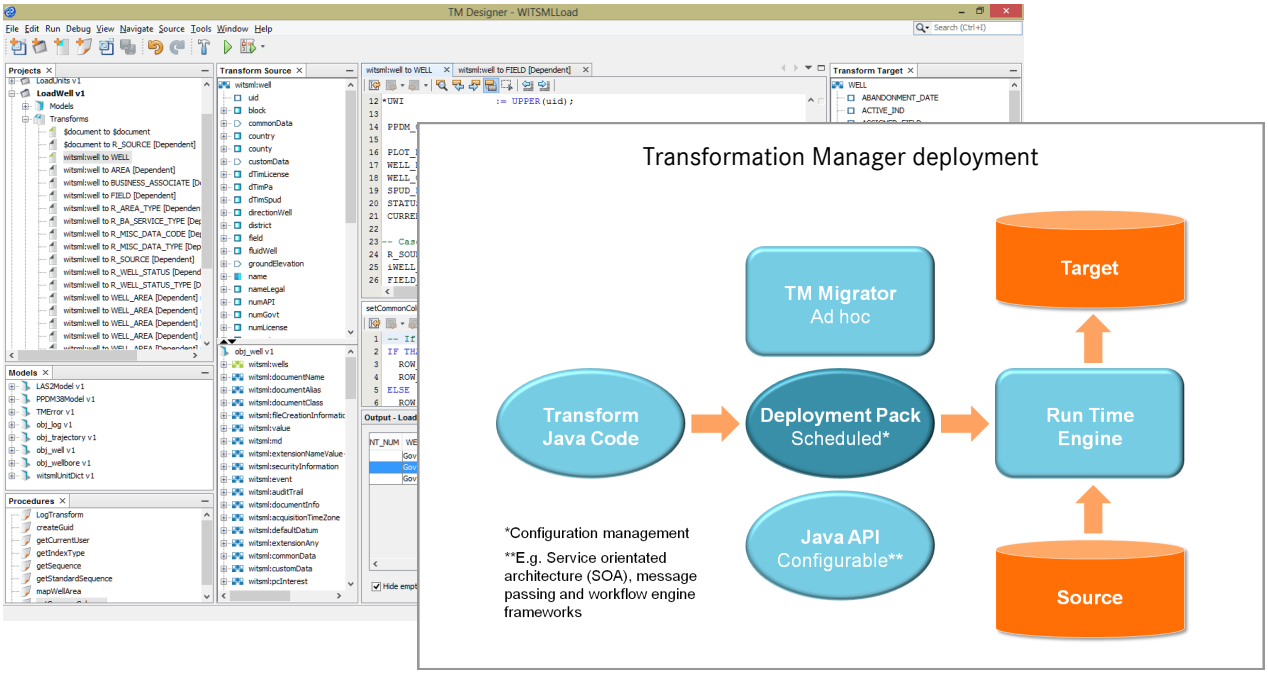
Extends the functionality of SML by enabling developers to reuse existing code or to implement functions which would otherwise be unavailable.

Change and update handling

As source and target data models change, Transformation Manager allows for this by simply swapping in the new model. The software reports any impact the new model may have on the existing logic, pin-pointing the necessary updates.

Lightweight deployment

Transforms can be deployed in various forms: using TM Migrator; as binary executables via deployment packs; or via a Java API including web services and JEE environments. The diagram below shows the main deployment options:



Structural manipulation

One of the software's core strengths is in handling structural changes between source and target. Its design allows additional structure to be added into target data structures in a cascading modular fashion. Users can populate ever more complex new systems, or simplify structures from source systems to a data warehouse. This provides greater structural integrity and a modular framework.

Relational manipulation

Adding and modifying relationships within any model loaded into Transformation Manager, from database to flat file, provides flexibility and strength. This improves structural integrity when defining migration business rules.

E&P datasheet

Transformation Manager capabilities

Transformation Manager provides developers with the ability to build data movement components to and from most Exploration & Production (E&P) sources and targets. Users also benefit from our range of robust, pre-built templates. Our templates dramatically reduce development time by freeing the user to concentrate on their project's custom or tailored requirements.

The source and target templates that are available currently include:

- ✓ WITSML
- ✓ PRODML
- ✓ RDBMS via JDBC or ODBC
- ✓ XML DTD/XSD
- ✓ RESQML or other XML based model
- ✓ Excel files
- ✓ DecisionSpace i.e. EDM, Geographix and Openworks
- ✓ PPDM
- ✓ DLIS
- ✓ LAS
- ✓ CSV and flat files

For instance, the PPDM template directly supports PPDM data transformation projects. It consists of two pre-loaded models (PPDM 3.7 and PPDM 3.8), a data project containing 15 pre-built transforms, a reference data project containing 56 pre-built transforms, and a selection of useful procedures.

PPDM™ Gold Compliant

Transformation Manager benefits

Greater efficiency and reduced costs:

- Deliver components >40% faster
- Identify and correct errors early
- Map any level of complex business logic within a single framework
- Share and hand over tasks within the transparent development environment
- Re-use and upgrade existing models
- Avoid the expense of server hosting or additional hardware
- Slot a project into existing data flows within current architectures

Reduced risk:

- Identify errors early in a repeatable, open development process
- Use 250+ built-in functions to avoid manual coding
- Leverage the domain-specific terminology provided by the metadata
- Test thoroughly using the integrated test and debugging environments
- Share automatically generated documentation
- Use SML to handle mapping logic clearly

Contact

To find out how ETL Solutions or Transformation Manager could assist your project, or to request a demo, contact Karl Glenn, Business Development Director at ETL Solutions.

kg@etlsolutions.com
+44 (0)1248 675 070
+44 (0)7736 404 080

skype karlglenn