globtech

GTL GENERATOR

TOOL FOR INFORMATICA OBJECTS GENERATION

OBJECTS FOR INFORMATICA POWERCENTER

YOUR JOURNEY FROM DATA TO INFORMATION

BUSINESS INTELIGENCE DATA WAREHOUSING INTEGRATION SUCCES

COMPLETE SOLUTIONS

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TOOL DESCRIPTION

GTL GENERATOR IS A TOOL FOR EFFICIENT AND FAST IMPLEMENTATION OF INFORMATICA POWERCENTER OBJECTS.

GTL GENERATOR PERMITS TO GENERATE:

- SOURCE AND TARGET OBJECTS FOR TRANSFORMED DATA (INFORMATICA POWERCENTER SOURCES AND TARGETS)
- MAPPING WITH TRANSFORMATIONS TAILORED TO USER-DEFINED TEMPLATES - TEMPLATES CAN BE CREATED USING STANDARD TRANSFORMATIONS AVAILABLE IN THE INFORMATICA POWERCENTER MAPPING DESIGNER APPLICATION - TEMPLATES CAN MAKE USE OF EXTERNAL COMPONENTS WHICH ARE ACTIVATED BY SPECIFIC ALGORITHMS PROGRAMMED IN C OR JAVA
- SESSIONS AND WORKFLOWS FOR GENERATED MAPPINGS
- AUXILIARY FILES FOR MAPPING – PARAMETRICAL FILES AND DEFINITION PLANS FOR EXTERNAL COMPONENTS
- SQL CODE (BTEQ SCRIPT, SAVED PROCEDURE) BASED ON TEMPLATE AND MODULE INPUT

SOURCE AND TARGET GENERATION PRINCIPLE

THE GTL GENERATOR PERMITS TO GENERATE SOURCE AND TARGET OBJECTS (INFORMATICA SOURCES AND TARGETS) FOR IMPORT TO INFORMATICA REPOSITORY. SOURCES AND TARGETS ARE METADATA STRUCTURES WHICH DESCRIBE DATA STRUCTURE OF TABLES OR DATA FILES IN THE INFORMATICA POWERCENTER REPOSITORY; NO ETL TRANSFORMATIONS CAN BE GENERATED WITHOUT THEM. THE GTL GENERATOR DRAWS INFORMATION ON DATA STRUCTURES USED FROM USER-DEFINED DATABASE MODEL (LIST OF TABLES, COLUMNS, DATA TYPES, LIMITATIONS, ETC.). DATA INPUT TAKES PLACE THROUGH TEXT FILES IN THE CSV FORMAT.

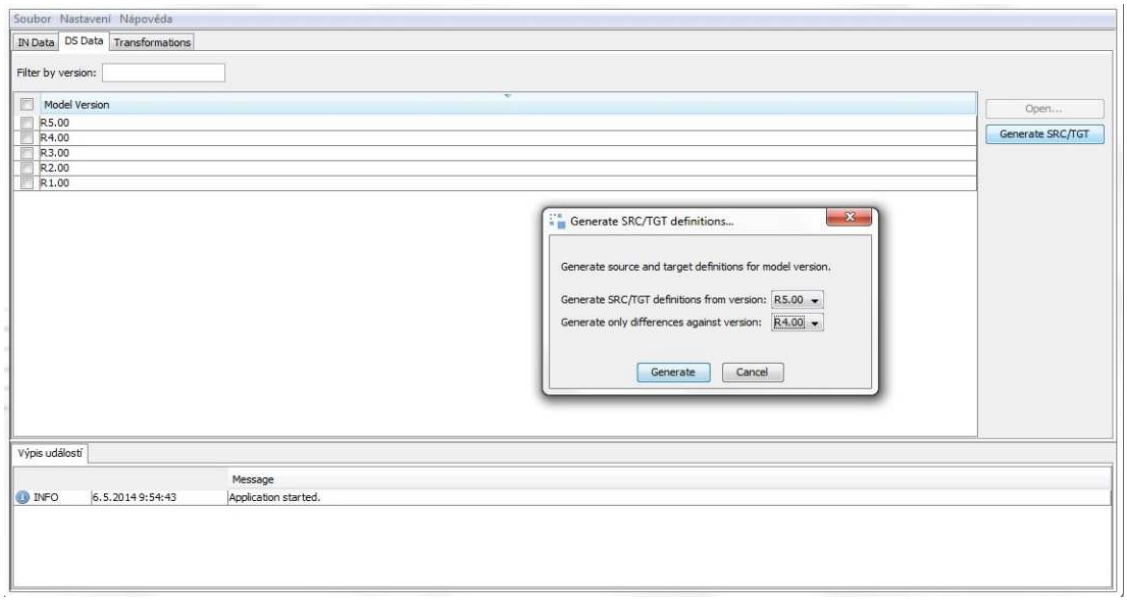
THE GTL GENERATOR PERMITS TO DERIVE THE FOLLOWING INFORMATICA OBJECTS FROM DATA STRUCTURE DEFINITIONS:

- DATABASE-TABLE TYPE SOURCES AND TARGETS
- FLATFILE TYPE SOURCES AND TARGETS
- SHORTCUTS IN PRODUCTION DIRECTORIES TO SHARED SOURCE AND TARGET DEFINITIONS

UPON DERIVING INFORMATICA OBJECTS, TECHNICAL COLUMNS MAY BE ADDED TO OR REMOVED FROM DATA STRUCTURES ACCORDING TO USER-SPECIFIED RULES.

GENERATION RESULTS IN INFORMATICA POWERCENTER OBJECTS SAVED IN XML WHICH MAY BE IMPORTED DIRECTLY TO THE INFORMATICA POWERCENTER REPOSITORY.THE GTL GENERATOR PERMITS TO IDENTIFY DIFFERENCES AND GENERATE DIFFERENTIAL VERSIONS OF SOURCES AND TARGETS BETWEEN ANY VERSIONS OF APPLIED DATABASE MODEL.

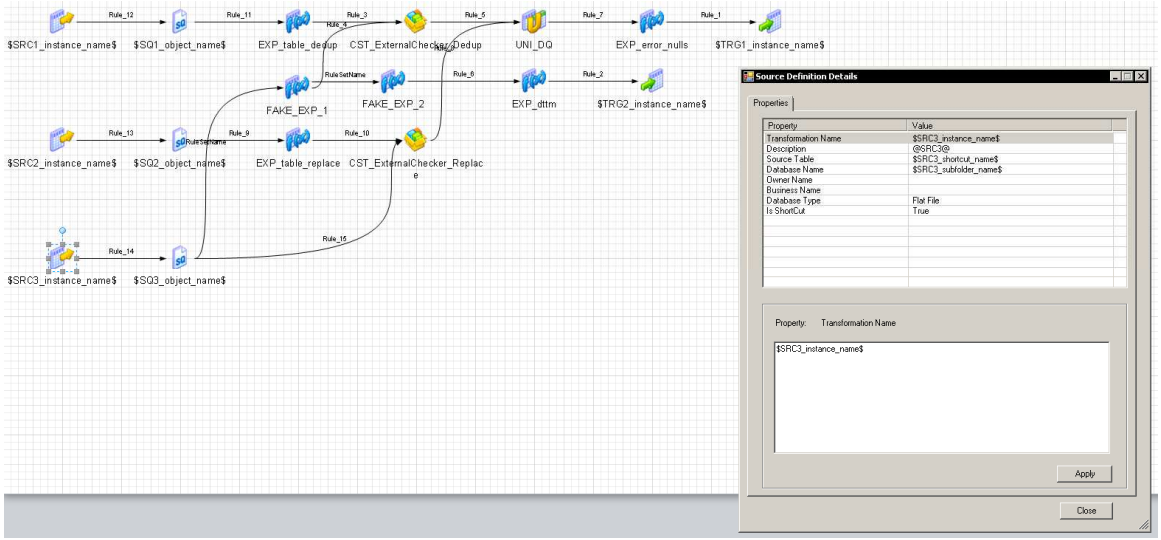
SOURCES AND TARGETS GENERATING.



GENERATION PRINCIPLE FOR OBJECTS OF THE MAPPING, SESSION AND WORKFLOW TYPE

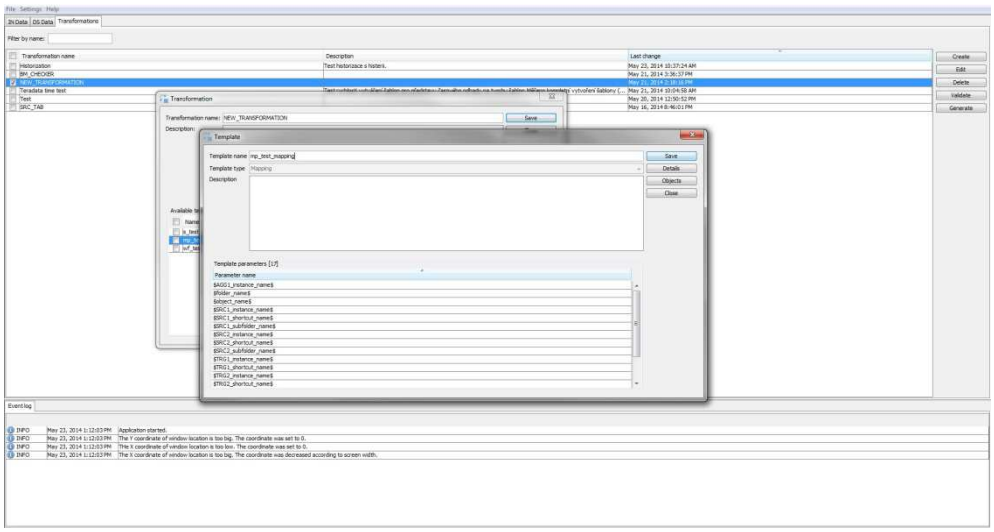
THE GTL GENERATOR MAKES USE OF THE INFORMATICA MAPPING ARCHITECT FOR VISIO TOOL (A PART OF INFORMATICA POWERCENTER'S CLIENT TOOLS) WHICH PERMITS TO DEFINE TEMPLATES WITH PARAMETERS BASED ON A FUNCTIONAL MAPPING PROTOTYPE AND SUBSEQUENTLY CREATE REQUIRED NUMBER OF "CLONES", SUBSTITUTING PARAMETERS WITH RELEVANT METADATA. THE GTL GENERATOR SERVES AS A SUPERSTRUCTURE FOR THE INFORMATICA MAPPING ARCHITECT FOR VISIO TOOL WHICH ENABLES THE USER TO PREPARE TEMPLATES FOR MAPPING GENERATION AND TO GENERATE MAPPING (TOOL INFORMATICA MAPPING ARCHITECT FOR VISIO ONLY SUPPORTS OBJECTS OF THE MAPPING TYPE, NOT OBJECTS OF THE SESSION AND WORKFLOW TYPE). THE GTL GENERATOR INITIATES INFORMATICA MAPPING ARCHITECT FOR VISIO FROM WHERE IT THEN RECEIVES THE USER-DEFINED MAPPING TEMPLATE. THE GTL GENERATOR EXTENDS OPTIONS OF WORK WITH EXTERNAL COMPONENTS WHICH CAN ONLY BE USED IN THE INFORMATICA MAPPING ARCHITECT FOR VISIO TOOL WITHOUT THE GTL GENERATOR APPLICATION ON A VERY LIMITED SCALE.

TEMPLATE IN MAPPING ARCHITECT FOR VISIO.



TEMPLATE CREATED IN THE INFORMATICA MAPPING ARCHITECT FOR VISIO IS TAKEN OVER BY THE GTL GENERATOR AND FROM THEN ON, FURTHER ADMINISTRATION OF PARAMETERS AND VALUES FOR GENERATION TAKES PLACE IN THE GTL GENERATOR.

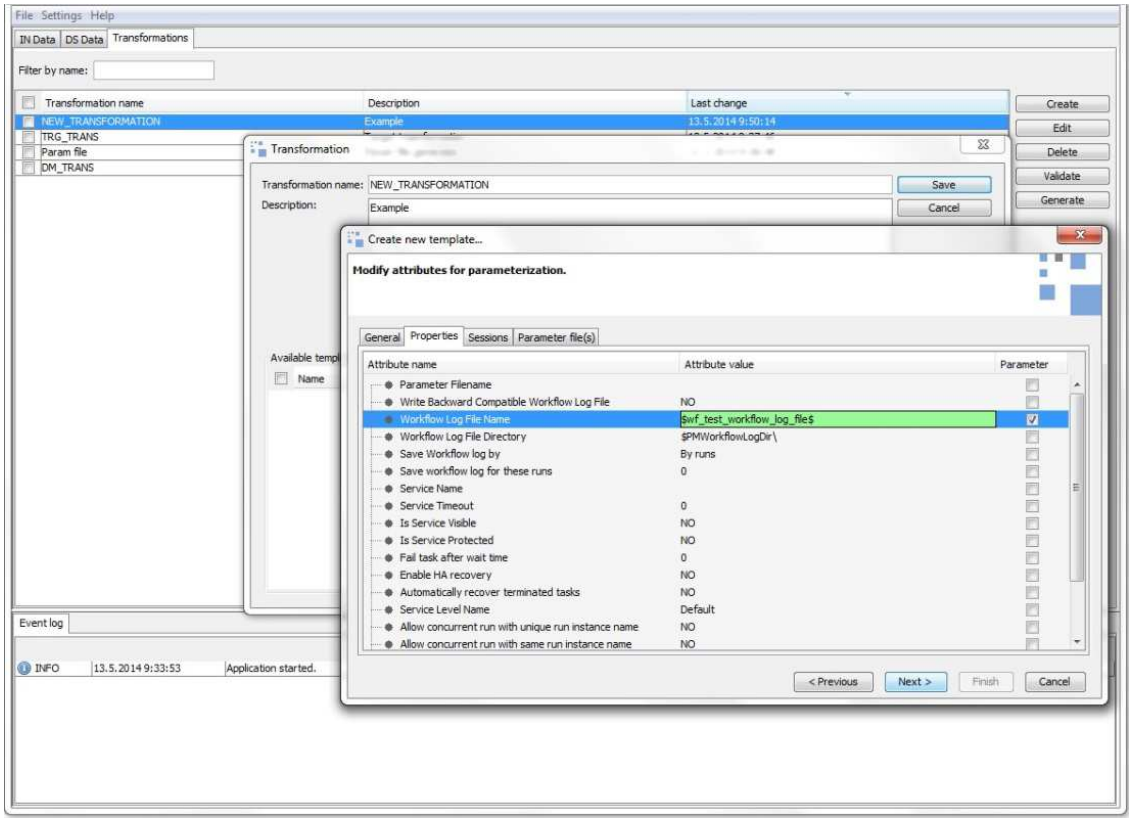
TEMPLATE IN GTL GENERATOR APPLICATION.



A SIMILAR PRINCIPLE, BASED ON TEMPLATE CREATION AND PARAMETER SUBSTITUTION, IS USED TO CREATE SESSION AND WORKFLOW BUT THIS FUNCTION IS NOT SUPPORTED BY INFORMATICA TOOLS AND IT CONSTITUTES A UNIQUE QUALITY OF THE GTL GENERATOR. THE GTL GENERATOR THUS EXTENDS THE SPECTER OF OBJECTS FOR COMPLEX GENERATION OF TRANSFORMATIONS AND PERMITS TO GENERATE A FUNCTIONAL WORKFLOW WHICH CAN ACTUALLY BE RUN IN INFORMATICA POWERCENTER'S ETL TOOL.

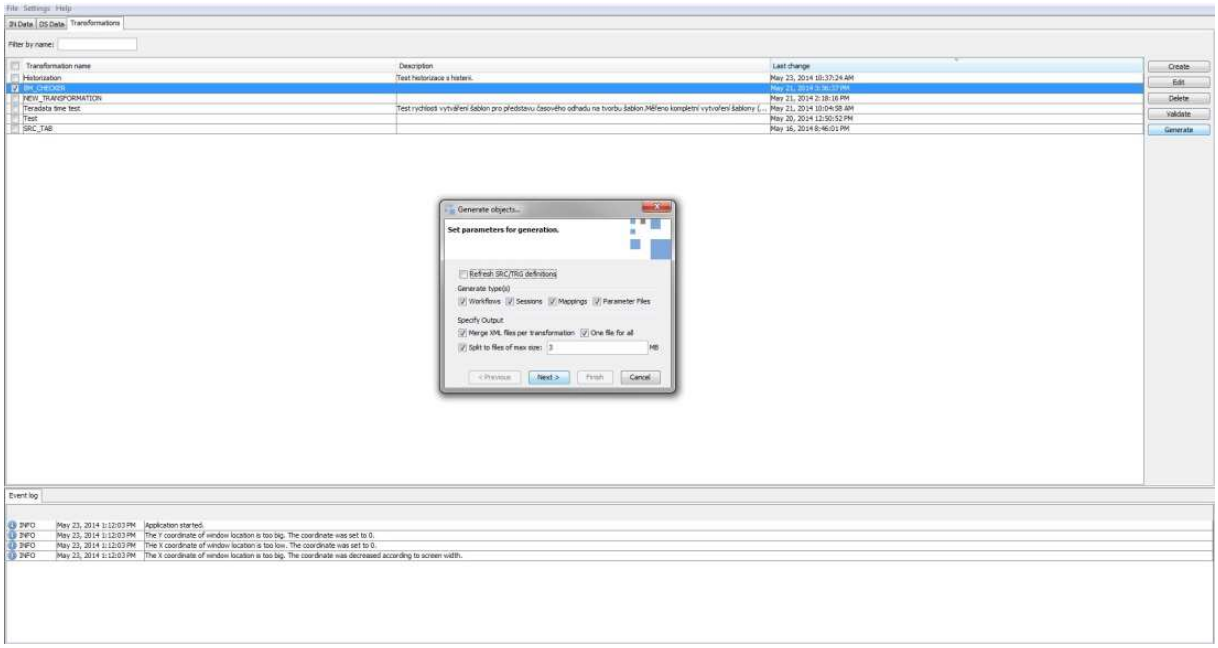
SESSION AND WORKFLOW PROTOTYPES ARE CREATED BY THE USER IN THE INFORMATICA WORKFLOW MANAGER TOOL. READY WORKFLOW PROTOTYPES ARE EXPORTED OUT TO AN XML FILE; AND THEY ARE DOWNLOADED INTO THE GTL GENERATOR WHERE USERS MAY CREATE A TEMPLATE FROM DOWNLOADED PROTOTYPES. WHEN THE TEMPLATE IS BEING CREATED, THE GTL GENERATOR PERMITS THE USER TO MARK VALUES WHICH ARE TO BE SUBSTITUTED DURING GENERATION WITH CONCRETE VALUES FOR A SPECIFIC GENERATED SESSION AND WORKFLOW AND VALUES WHICH ARE TO BE SUBSTITUTED AS CONSTANTS.

PARAMETERS SETTING.



SUBSEQUENTLY, THE GTL GENERATOR GENERATES COMPLETE SESSION AND WORKFLOW AND SUBSTITUTES VALUES INTO THE TEMPLATE BASED ON USER-DEFINED RULES. RESULTANT SESSION AND WORKFLOW ARE GENERATED OUT INTO XML FILES WHICH ARE THEN IMPORTED INTO THE INFORMATICA POWERCENTER REPOSITORY.

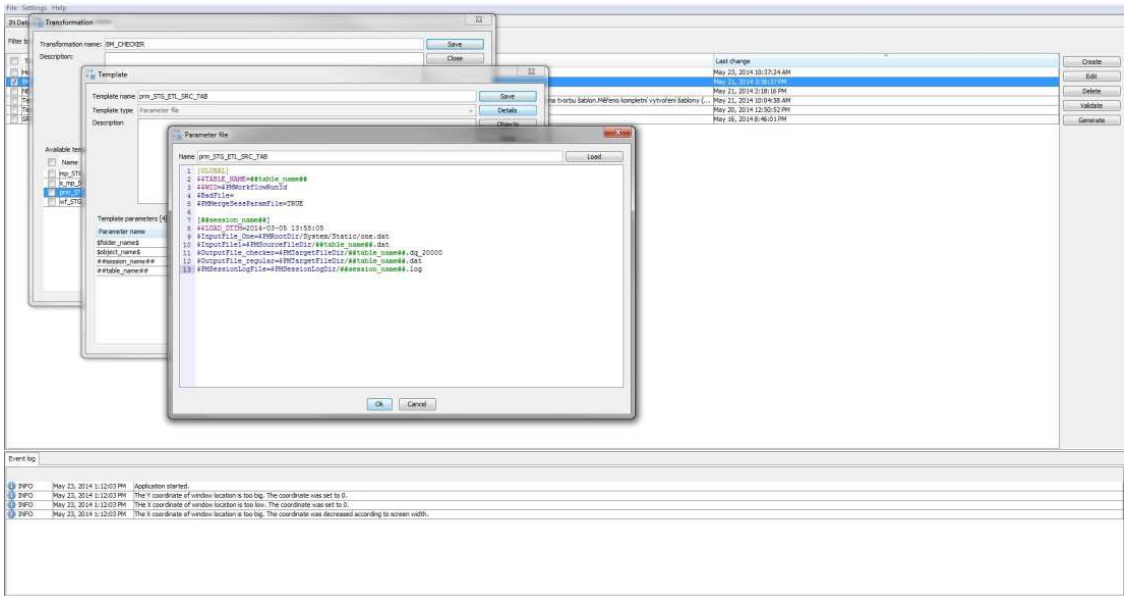
OBJECTS GENERATING



AUXILIARY FILE GENERATION PRINCIPLE

AUXILIARY FILES ARE CONSTITUTED BY PARAMETRIC FILES FOR EACH TRANSFORMATION AND DEFINITION PLAN (LIST OF COLUMNS FOR RELEVANT TABLE WITH SETTING OF PARAMETERS/EVENTS FOR SUCH COLUMNS) FOR EXTERNAL COMPONENTS. PARAMETRIC FILES ARE DEFINED BY A STATIC TEMPLATE WHEREIN THE USER MAY MARK PARAMETERS WHICH ARE TO CHANGE FOR USE IN THE GIVEN MAPPING. THE GTL GENERATOR THEN SUBSTITUTES MARKED PARAMETERS WITH VALUES BASED ON USER-DEFINED RULES.

PARAMETRIC FILE TEMPLATE.



SIMILARLY, DEFINITION PLANS OF EXTERNAL COMPONENTS ARE GENERATED FROM STATIC TEMPLATES BY SUBSTITUTING VALUES FOR THE PARAMETERS MARKED. THE GTL GENERATOR MAKES IT POSSIBLE TO DEFINE VARIABLES INTO STATIC TEXTS AND SUCH VARIABLES ARE SUBSTITUTED, UPON GENERATION, BY RESULTS OF SQL DATA QUERIES INTO METADATA TABLES. THIS PRINCIPLE MAY ALSO BE APPLIED IN GENERATING SQL SCRIPTS AND DB PROCEDURES.

TOOL ARCHITECTURE

THE GTL GENERATOR SW TOOL COMPRISES THREE BASIC COMPONENTS:

- THE GTL GENERATOR ITSELF (IN JAVA) INSTALLED AT THE WORK STATION
- MAPPING ARCHITECT FOR VISIO (A PART OF INFORMATICA POWERCENTER INSTALLATION)
- GTL GENERATOR REPOSITORY IN THE ORACLE DATABASE TO STORE INITIAL METADATA, APPLICATION CONFIGURATION AND GENERATED OBJECTS (INFORMATICA POWERCENTER OBJECTS, SQL OBJECTS, ETC.)

SOFTWARE REQUIREMENTS:

- MS WINDOWS VISTA OR HIGHER
- JAVA JRE 6.0 OR HIGHER
- INFORMATICA POWERCENTER 9+ (INCLUDING CLIENT)
- MS VISIO ENTERPRISE ARCHITECT (32-BIT OR 64-BIT VERSION IN ACCORDANCE WITH THE INFORMATICA POWERCENTER)
- DATABASE TO STORE GTL GENERATOR REPOSITORY (ORACLE 10 OR HIGHER)

HARDWARE REQUIREMENTS-DISC SPACE:

- APPLICATION – 100 MB
- DATABASE TO STORE METADATA – C. 500 MB (ACCORDING TO THE NUMBER OF OBJECTS AND SIZE OF METADATA HISTORY)

METADATA FOR THE GTL GENERATOR SW TOOL MAY BE STORED AT SOME OF EXISTING DATABASE SERVERS; THERE IS NO NEED TO HAVE A SPECIAL DATABASE SERVER RESERVED.

KEY TOOL QUALITIES

KEY QUALITIES OF THE GTL GENERATOR INCLUDE:

- CREATING USER TEMPLATES FOR INFORMATICA POWERCENTER OBJECTS OF MAPPING TYPE (THE INFORMATICA MAPPING ARCHITECT FOR VISIO FUNCTION IS USED)
- CREATING USER TEMPLATES FOR SESSION-TYPE OBJECTS
- CREATING USER TEMPLATES FOR WORKFLOW-TYPE OBJECTS
- CREATING USER TEMPLATES FOR SQL-TYPE OBJECTS
- EXTENDING FUNCTIONS OF THE INFORMATICA MAPPING ARCHITECT FOR VISIO BY A VARIABLE EXPRESSION OPTION AT THE LEVEL OF EACH FIELD IN EXPRESSION TRANSFORMATION
- EXTENDING FUNCTIONS OF THE INFORMATICA MAPPING ARCHITECT FOR VISIO BY MODULES NEEDED TO GENERATE EXTERNAL COMPONENTS GLOBTECH (GTL EXTERNAL CHECKER, GTL CONSOLIDATION AND OTHER COMPONENTS)
- GENERATING MAPPING FROM USER TEMPLATES BASED ON METADATA
- GENERATING SESSIONS FROM USER TEMPLATES BASED ON METADATA
- GENERATING WORKFLOWS FROM USER TEMPLATES BASED ON METADATA
- GENERATING SQL (BTEQ, SAVED PROCEDURE) FROM USER TEMPLATES BASED ON METADATA

GTL GENERATOR'S BENEFITS

KEY BENEFITS OF THE GTL GENERATOR INCLUDE:

- MORE EFFICIENT DEVELOPMENT OF ETL SCRIPTS USING THE INFORMATICA POWERCENTER
- OPPORTUNITY TO GENERATE A GREAT NUMBER OF STANDARDIZED/TEMPLATE TRANSFORMATIONS WITHOUT THE NEED FOR FURTHER ADJUSTMENTS BY APPLICATION DEVELOPER (INCLUDING ALL AUXILIARY FILES AND OBJECTS)
- OPPORTUNITY TO GENERATE COMPLETED ETL SCRIPTS REPEATEDLY IN CASE OF ANY CHANGES IN DB MODEL
- OPPORTUNITY FOR MASS GENERATION OF NON-UNIFIED TRANSFORMATIONS DESIGNED FOR FURTHER DEVELOPMENT
- SUPPLEMENTING THE MAPPING ARCHITECT FOR VISIO TOOL (A PART OF INFORMATICA POWERCENTER) BY SESSION AND WORKFLOW GENERATION

- OPTIONAL EFFECTIVE IMPACT ANALYSIS IN CASE OF DATA STRUCTURE CHANGES AND IMPLEMENTATION OF CHANGES INTO PRODUCTION SOLUTION
- OPPORTUNITY TO CHOOSE TO GENERATE ALL OBJECTS OR MODIFIED OBJECTS ONLY
- OPTION TO CONNECT WITH THE DATA MODEL, E.G. IN THE SAP POWERDESIGNER THROUGH SIMPLE INTERFACE (CSV FILES)
- OPTION TO GENERATE SQL CODE BASED ON TEMPLATE AND METADATA (TABLE DEFINITION)

STANDARD COMPONENTS OF DELIVERY

BESIDES LICENSE, GLOBTECH OFFERS, AS A PART OF THE DELIVERY, TO RENDER SERVICES CONNECTED WITH MAKING THE GTL GENERATOR OPERATIONAL AND STARTING UP ITS COMMON RUNNING.

THESE SERVICES INCLUDE:

- INSTALLING AND MAKING THE SE TOOL OPERATIONAL ON CLIENT'S COMPUTERS
- ARRANGING / INITIALIZING CONNECTION TO EXISTING METADATA SOURCES
- DELIVERY OF TEMPLATES FOR STANDARD APPLICATION OF EXTERNAL COMPONENTS OFFERED BY GLOBTECH (GTL EXTERNAL CHECKER, GTL CONSOLIDATION, ETC.) AND MODEL TEMPLATES FOR BASIC TRANSFORMATIONS
- TRAINING FOR CLIENT'S PERSONNEL TO USE THE TOOL
- PROVIDING COMPLETE DOCUMENTATION FOR THE SW TOOL AND INSTALLED SETTING

IMPROVEMENT IN COMPARISON WITH THE PREVIOUS VERSION:

- UNIFIED GUI
- EXTENSION OF OPTIONS FOR USER-DEFINED METADATA
- POSSIBILITY OF GENERATING SQL