

# Data and Database Conversions

The database and data conversion phase begins very early in the modernization process. The new database designs become the basis for conversion and re-generation of all related applications.

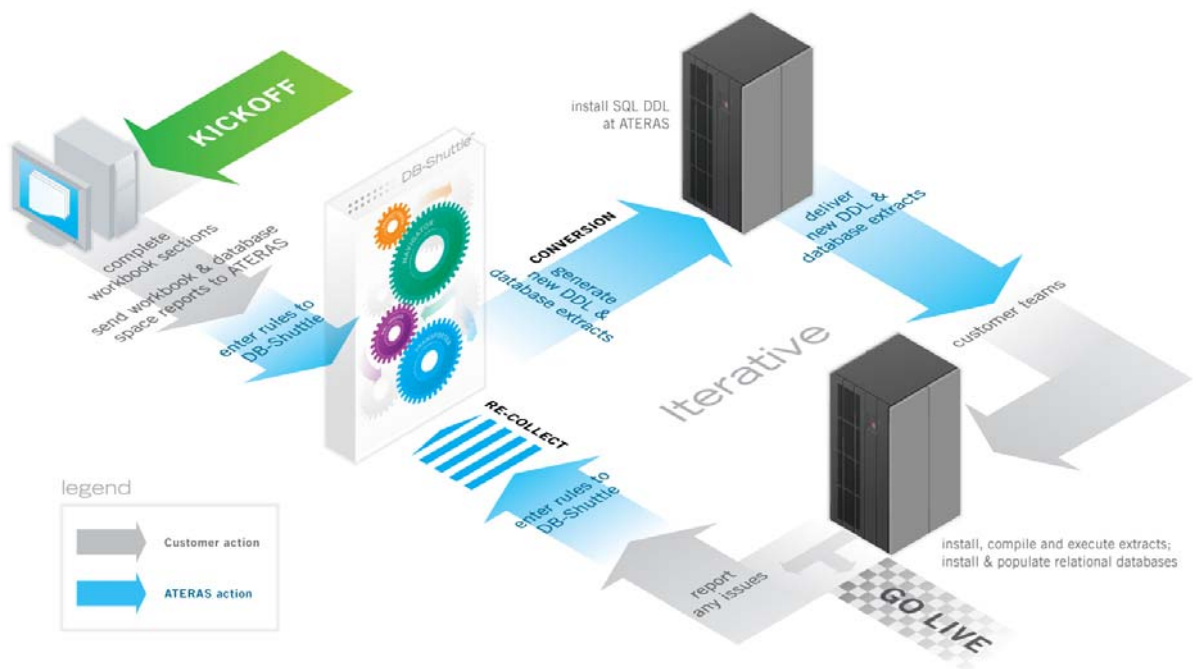
## Overview

ATERAS works with the customer’s database administration team to select options and define the rules used for modernization to ensure the resulting database conforms to the customer’s naming standards. Together these teams also define the rules for data cleansing, handling of “occurs” clauses, “group level” elements and “redefines” clauses.

DB-Shuttle™ generates the new databases according to the naming rules and options defined. ATERAS delivers the first pass of the new SQL data definition language (DDL) within the first few days of this conversion phase. The teams make rule adjustments and re-generate the DDL as required until the DDL fully meets the customer standards.

The database and data conversion is typically performed simultaneously with the application software conversion. These project phases may be performed independently. The ATERAS conversion process creates independent database and application access layers.

Modernizing applications to meet business needs costs a fraction of the cost of implementing a comparable new system, with no risk of business interruptions.



## Process

The Database and Data Conversion phase includes the de-construction of the legacy database definitions into metadata artifacts. ATERAS enters additional rules based upon customer workbook entries which include: column and table naming date type formats, overrides for redefines and group level clauses, and preferences for each statement and clause in the resulting DDL.

The generation of brand new DDL defines a complete relational database providing the same data access as the legacy database.

This a well-defined process that includes the collection and automated inventory, analysis and measurement of the software and database components collected from the customer environment. The assessment begins with a question-and-answer workbook section and ends with the presentations of final findings and plans regarding the environment and the modernization effort. Iterations of re-collection and re-assessment may be required and performed as additional components are identified and brought into the assessment scope. The DB-Shuttle assessment process is 100% automated, so it is fast, simple and comprehensive.

The resulting relational database definitions are installed at ATERAS prior to delivery to the customer to ensure that the generated code is syntactically correct. For mainframe-to-mainframe conversions, ATERAS even delivers the JCL required to compile and execute the extracts from the legacy database. Workbenches for date type handling allow the new databases and applications to take advantage of all of the “date and time” data types in the relational database.

The legacy database definition can be re-collected and re-converted anytime throughout the project lifecycle. This prevents the need to put a freeze on changes to the legacy database structure.

## Deliverables

The resulting relational database definitions are packaged and delivered, ready for installation in the new target environment. The data extract programs are packaged and delivered, ready for compilation and execution in the former database processing environment.

## Tasks

ATERAS performs the following high-level tasks during the database and data conversion phase:

- Provide a Database Definition form for each database that will be converted
- Provide reports regarding occurs clauses, redefines clauses, group levels and potential date fields
- Provide guidance in correctly and completely filling out the Database Definition form(s)
- Import the schema/database definition report(s)
- Generate the initial SQL Imager load summary reports for the schema(s)
- Review the complexity reports for the schema(s)
- Review log messages for any errors during the import and initial parse phases
- Load the table naming rules defined in the submitted Database Definition form(s)



- Load the column naming rules as defined in the submitted Database Definition form(s)
- Load the date rules for each date element
- Load the adjustment rules for any redefines, occurs clauses and group levels
- Generate the first pass of the converted database
- Present questions regarding the first-pass conversion
- Generate the DDL, Load Syntax and related JCL for the converted database(s)
- Generate the record relationship diagrams for the old database/file structure(s)
- Generate the Entity Relationship Diagram(s) for the relational database(s)
- Generate the non-Relational extract program series and cross-reference reports
- Conduct a walkthrough of the deliverables and the processing instructions
- Apply changes based upon input from customer teams
- Apply cleansing rules as provided by customer teams

## Reports

The ATERAS Conversion produces the following reports:

- Data Cleansing Report
- Date Conversion Detail
- Element Rename Detail
- Extract File Cross-Reference
- Extract Program Matrix
- Index Columns
- Key Columns
- Key Inheritance Existing Fields
- Key Inheritance Inserted Fields
- Key Mapping Summary
- Key Rename Summary
- Load Errors
- Load Summary
- Record Scoring
- Record Table Comparison All
- Record/Table View by Schema
- Date Finder Report