

AUTOMATED CONVERSION COBOL TO JAVA OR C#

Modernize codebases and data tier without modifying behavior. Automated Conversion offers a 100% functionality match for model, view, and control layers. This solution is great for moving COBOL apps to Java or C#, and databases to SQL Server, DB2 or Oracle.

HOW IT WORKS

1 Mainframe Assessment

A thorough inventory analysis of the application components to establish the definitive project inventory and to populate a repository of components to be migrated to the target environment. This activity is conducted using the Modern Systems toolset and includes analysis of the entire inventory to confirm the inventory sizing used to establish project milestones, as well as to identify any potential areas of concentration that may require particular attention or consideration.

2 Data & Application Conversion

Legacy COBOL code is converted into Java or C# and the unloading, transformation, and loading of data from the legacy database to the target relational environment takes place. No business logic or application functionality is changed as part of the transformation.

3 Test, Refresh, Deploy

Pre-delivery testing consists of test cases picked from all available functional test cases in order to be representative of different parts of the applications.

After testing, a refresh of the in-scope inventory, for code that was changed during the migration project period takes place. This refresh ensures a seamless transition to the modernized environment for users and stakeholders.

After the converted, pre-delivery tested data migration scripts and converted application code are delivered, the modernized environment is put into production and the legacy environment can be eliminated. Modern Systems' expert staff is available to help with any issues after deployment to ensure a hassle-free transition.



CASE STUDIES



VIDEO OVERVIEW

WHITEPAPERS



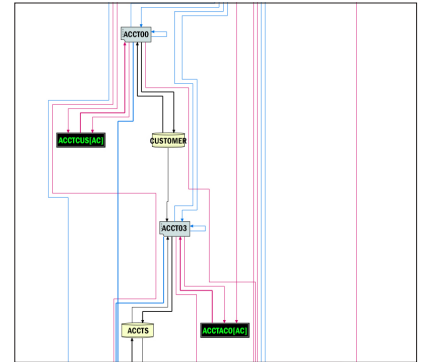
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UNDER THE HOOD

Mainframe Assessment

The mainframe assessment is a complete research and analysis project that outlines all mainframe application and database conversion candidates. Components are classified and listed in detail. Notes are attached to components requiring special attention during the conversion process. All application components are inventoried, classified by language, and cross-referenced. Missing components are collected and added to the inventory. Duplicate components residing in multiple customer repositories are eliminated from the inventory. The mainframe assessment results in a complete understanding of the current processing environment.

This phase also includes discussing and reviewing the overall system test strategy and the division of the converted code into work packets.



Screenshot: Program Interaction Diagram

Modern Systems defines a set of topics during the mainframe assessment phase that must be addressed prior to conversion. In order to speed the modernization process, these topics should be addressed by those team members who are best suited to understand the topic, the solution options, and any changes or activities that are required to address the Areas of Concentration.

Once the Areas of Concentration are identified, customer teams and Modern Systems address the areas about which they are most knowledgeable and for which they are best suited to implement a solution. Any additional Areas of Concentration that are identified during the course of the Project are addressed and assigned in the same manner, to the most appropriate team.

Data & Application Conversion

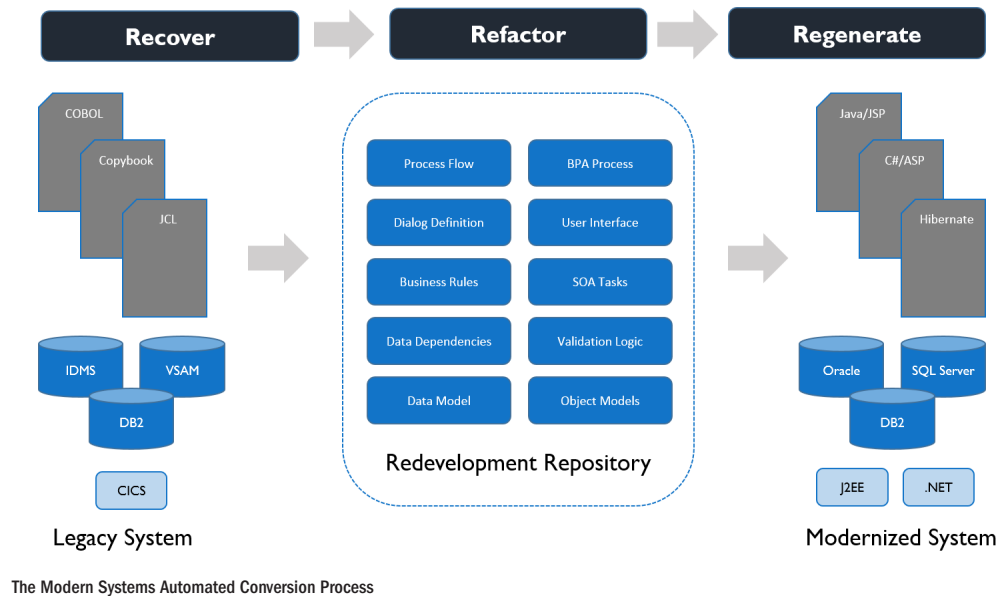
This phase includes the tasks required for unloading, transformation, and loading of data from the non-relational database to the target relational environment. The data migration specification is based upon the structure of the existing data model and the database mapping rules defined during the mainframe assessment phase. Modern Systems generates programs/scripts to be used for the customer's testing and migration of production data. Highlights of the data migration phase include:

- Non-relational database modeling utilizes a one-to-one default mapping approach into the new relational data model.
- Deliverables include scripts/programs necessary for extract/transform/load (ETL) of data from the source environment to the target environment, as well as DDL for defining the target data model in the relational model, pre-delivery tested on customer-supplied test data, and data verification software.
- Migration of data for on-site testing and production data is the customer's responsibility; Modern Systems provides migration scripts developed and tested using the test data provided by the customer.

AUTOMATED CONVERSION COBOL TO JAVA OR C#

UNDER THE HOOD

Legacy source code is converted into Java or C#, based on rules and code styles agreed upon in the mainframe assessment, to a compiled state, to be deployed on an application server supporting the new object-oriented code. No business logic or application functionality is changed as part of the transformation.



3 Test, Refresh, Deploy

Modern Systems tests a subset of the converted code using a test plan with documented test scenarios (test scripts) provided by the customer. The customer writes the tests and runs them on the existing system to capture and record the expected results. Modern Systems then runs the tests against the same data on the converted system, identifies, investigates, and fixes discrepancies in the expected behavior of the modernized application. Pre-delivery testing consists of test cases picked from all available functional test cases in order to be representative of different parts of the applications.

Once pre-delivery testing is complete and any discrepancies in application behavior are resolved, Modern Systems performs a code refresh to ensure that any changes that took place in the legacy application environment during the conversion process are accounted for, converted into the target language and environment, and tested.

The Modern Systems teams work closely with our customer teams to ensure a smooth and error-free transition night or weekend. A primary team may be onsite during the cut-over, and all other Modern Systems team members are on-call should assistance be required. Our teams also provide any required assistance during the 90-day warranty period following the deployment.

We also offer post-application support of the modernized application, available at a fixed rate or in hourly buckets purchased as needed by the customer.