

One Step IDMS Conversion & Re-engineering

Until now, the ability to change the way that data relationships and data definitions are carried forward into a relational design has been limited. Data relationship rules defined within the IDMS schema must be strictly followed. Deviations from a "one to one" conversion were often discouraged because these deviations introduced risk into the IDMS conversion project. Today, these IDMS data mapping restrictions no longer exist.

Data Re-engineering

With the development of the SBS DB-Shuttle™ Data Re-Engineering workbench, converting IDMS data to fully relational structures now includes full flexibility to change data formats and data relationships while ensuring minimal risk during the IDMS conversion.

Conversion Types

Many organizations are migrating their IDMS databases to relational database technology, including DB2, SQL Server, Oracle, Microsoft Windows and the .NET Framework. The resulting databases are non-proprietary, more easily accessible from other applications, and less costly to maintain.

One-for-One. Some organizations are quite satisfied with the functionality and performance that is built into their IDMS applications. In these cases, a "one for one" conversion of the IDMS databases and applications is the right solution, and it is the least costly and lowest risk solution. The resulting SQL Server or Oracle or DB2 database contains the same data formats and table relationships that were defined in the IDMS database.

Enhanced One-for-One. Some organizations are aware of limitations within their existing IDMS database structures. They need a method to allow

changes, enhancements and modifications to be built into the new relational database structure during the conversion without impacting the functionality of the former IDMS applications.

Pre-defined Target Database. Still other organizations are replacing their existing IDMS databases with (1) off-the-shelf packages, (2) relational database structures that they have already designed and implemented for other applications, or (3) relational database structures that they have been replicating for the past several years based upon the IDMS data.

Most organizations that have used IDMS as their primary database management system over the years are finding that some of their IDMS application conversions could be "one for one", others require minimal enhancements during conversion, and still others are slated for replacement by purchased packages.

Converting IDMS to Pre-defined Database Formats

When the target database is not a "one-for-one" image of the IDMS database, there is a need to map each IDMS data field to a new (and possibly quite different) database column in the relational target. In many cases, the IDMS fields from a single IDMS record type may map to multiple tables in the target database. Some IDMS fields may be dropped altogether. The values for some relational table columns may need to be "generated out of air" based upon values in multiple IDMS record types.

Off-the-shelf packages that will replace the IDMS applications generally expand the processing capabilities and provide new features. They likely include more robust processing than the former IDMS-based applications. They also create the requirement to fully define the conversion requirements for the existing IDMS data to the pre-defined database structure.

Conversion Requirements

IDMS conversion generally always includes at least these three primary goals:

Full functionality - ensure that the relational application can mirror the relationships, ordering and management of IDMS data in the new relational database

Full flexibility - provide a means to modify or create relational table formats, column definitions, and table relationships that were not pre-defined within the IDMS schema

Low risk - ensure that the existing IDMS applications function exactly as they did in the IDMS environment, while also ensuring that the new features defined by the relational database are available to new applications

The goal in converting IDMS databases and applications to DB2, Oracle, UDB, SQL Server or other relational database technology is not always to create a one-to-one conversion. The ability to guarantee existing functionality AND flexibility has not been available in the past.

Correct and complete data conversion is the basis of any successful relational conversion. The resulting database structure is critical to future processing. Whether you are performing an IDMS conversion, a VSAM conversion, an Adabas conversion, a Datacom conversion, or a sequential file conversion, your ability to create the data relationships and formats that will drive your applications in the future is critical. DB-Shuttle provides a complete and fool-proof methodology to perform the conversion in record time, with no errors, and at a cost that meets your budget.

Data Mapping Workbench

The DB-Shuttle Data Mapping Workbench provides the ability for our customer teams to fully define the relationships between former IDMS data and the new relational database.

The workbench provides the ability to:

- Denote field and column relationships using a drag-and-drop workbench

- Store notes and descriptions with each column or table to further define detailed metadata for each column or table
- Define new target column formats so that former IDMS fields can be expanded, shortened, merged or split
- Map using relationships of one field to one column, one field to multiple columns, or multiple fields to a single column
- Map from one data format to another, with translations as required

Reports from the Data Mapping Workbench provide all team members with a full definition of the former IDMS database and the new relational structure. The disposition of each IDMS field can be defined in detail. The "data source" for each relational column can be defined in detail as well. The result is an overall perspective of former processing, future processing, and the conversion requirements.

Data Mapping in the Replacement Applications

Many organizations will convert all or part of their IDMS applications to one or more new languages -- COBOL, C#, Visual Basic and others. Some organizations will simply be replacing the IDMS database access to SQL within their existing applications.

The existing IDMS applications "expect" the data to be available in specific formats. They "expect" to retrieve the data using the access paths that have been in place for years. They "expect" to be able to reference the "group levels", "redefines clauses" and "occurs clauses" that were built into the IDMS database structure. When these applications are converted to the newer languages, the new applications have the same "expectation" for the data access.

In order to keep the conversion risk as low as possible, the DB-Shuttle conversion methodology includes the automatic generation of a database IO program layer. These SQL-based programs handle the translation of the database columns to the format "expected" within the applications.

They also handle conversion of the data to the new target definitions and formats when data is inserted or updated by the application. The database data is fully defined for the new target relational database. The application programs can continue to use the data formats and configurations that were defined in IDMS.

The result is a win-win design that ensures integrity and continued functionality in the existing applications, while providing a target database that is perfectly designed for the future.

Database Access Tier

DB-Shuttle automatically generates a stand-alone, high-performance SQL program for access and update of each table in the target relational database. Whether your IDMS conversion is to SQL Server, DB2 or Oracle, Windows platform or the .NET framework, the resulting SQL IO layer ensures integrity and consistent access. Maintenance is also simplified due to a single-access point for each table.

Whether your target application language is COBOL (COBOL on the mainframe, .NET COBOL, Fujitsu COBOL or Micro Focus COBOL) or another of the newer languages (C# .NET or Visual Basic .NET), your database access tier ensures data integrity and centralized control. Your converted applications contain no "black boxes". All components, even additional subroutines and processing modules, are generated and delivered to you in your language of choice. All are under the control of your applications team.

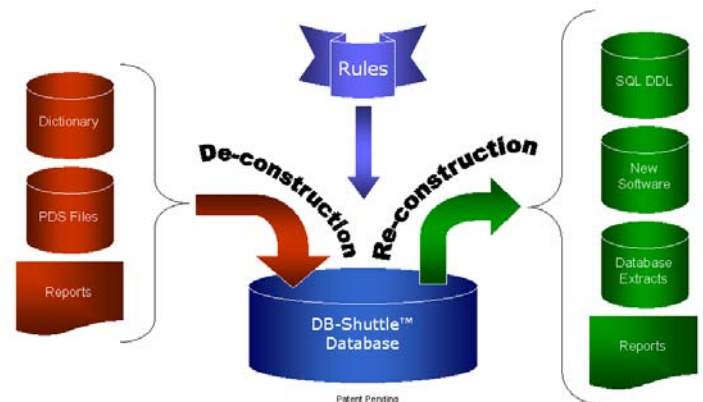
Conversion...the Fast, Low-risk Solution

Rely on DB-Shuttle and the teams at Sophisticated Business Systems Inc. to ensure a fast, complete and error-free conversion of your IDMS-based applications and databases to the target database and language of your choice!

DB-Shuttle™ Automation Suite

DB-Shuttle is a fully automated database and application tool set that is designed and enhanced and used by the teams at Sophisticated Business Systems Inc. DB-Shuttle uses a "snap on" conversion methodology that allows literally any language to be converted to any other

language, and that allows any database or file structure to be converted to the relational database technology of your choice - DB2, SQL Server, Oracle, UDB, and .NET platforms.



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