



## BlackBox Migrations, LLC

BlackBox Migrations, LLC, doing business as BlackBox Partners ("BlackBox"), is a Service-Disabled Veteran-Owned Small Business (SDVOSB) that offers solutions to industry and government. BlackBox offers solutions that fit practical business needs:

- **Project Management**
- **Database Management**
- **Professional Training**
- **Value Added Reselling**

BlackBox, operating out of offices in Northern Virginia and Houston, serves the market segments of those regions: Oil & Gas, Telecommunications, and Government.

## Database Services in Context

Relational databases hold the most valuable and essential information of an organization. Databases hold customer, financial and budgetary, employee, and inventory information and are crucial to modern business success.

Organizations require experts with years of experience in an array of Database Administration Services to support both active application development and ongoing maintenance of existing database installations. These experts need to understand both the technical and functional aspects of database projects in order to maximize the benefit of the investment in information resources.

Key to the maximization of investment is a fluency in the data types and business functions that warrant relational databases (which contain data that will be changing constantly and must be optimized for read and write) versus those that warrant a data warehouse (which contains data that is unchanging but routinely read and manipulated for the purposes of reporting and forecasting).

BlackBox's database specialists have the expertise to serve your organization during all phases of data-centric projects. We have certified consultants experienced in delivering quality Oracle, Microsoft SQL Server, Sybase, MySQL, and Microsoft Access database solutions.

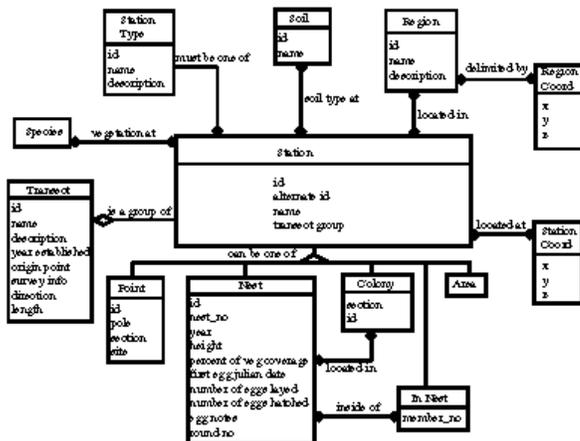


Figure 3. The Locational Module of the Relational Database Object Model

## Database Services Offered

- **Data Analysis/Data Management**  
We develop deep understanding of the client's information and the nature of the data in order to develop or adhere to a data strategy. This shapes developer's application code to best use the client's data repository (speeding data retrieval, minimizing wasted resources, and increasing the accuracy of information being reported).
- **Data Modeling and Metadata**  
We deliver or enhance models that optimize both transactional (read/write) and dimensional (data warehouse) environments. This includes logical and physical modeling using a variety of ERD tools, and inclusion of modeling into the customer's metadata tools. We design custom metadata repositories and management reports as needed.
- **Database Installation and Configuration**  
We install, configure and tune databases to support all environments of a 4-tiered development (i.e. development, test, user acceptance, and production). This includes installation of data model, migration of objects between environments, and forward-thinking parameter configuration in accord with a client's configuration management strategy.
- **Performance & Tuning**  
We routinely monitor database systems for performance issues, proactively noting problem areas. We make the best use of the underlying operating systems when configuring and installing the database. We develop core structured query language (SQL or PL/SQL), help define standards for SQL development, and troubleshoot/performance-tune existing SQL in order to enhance performance and efficiently query data. We tune SQL at a low level and trace server behavior at higher levels.
- **Backup & Recovery/Disaster Recovery**  
We implement backup and recovery plans (with experience in multi-terabyte datasets) in a variety of OS environments. We design both strategic and tactical backup programs. We document, design, test and deliver disaster recovery solutions for database systems.
- **Database Administration and Security**  
We are skilled in every aspect of ongoing database administration, including user administration, monitoring, space allocation, process administration, troubleshooting, patching and coordinating communications with vendor technical support. Key to administration is implementing appropriate security guidelines (such as NIST mandates).
- **Operational Scripting & Development**  
We bring a scripting-heavy approach to implementing database operations, with the goal of heavy automation of routine tasks to avoid mistakes and to help proactively monitor live databases. Perl, shell, VBScript and batch are the languages of choice.

