



Software Development Life-Cycle

Our senior architects and developers are well versed in full software development life-cycle following projects from conception to completion. Starting with requirements analysis to system design to software development, our staff utilizes their extensive experience and aptitude to build superior information systems in an efficient and cost-effective manner. Past application development projects have included everything from legacy systems support to e-commerce/online payment processing to database-driven publication systems.

MAR IT personnel have effectively managed the application of these technologies and techniques to develop applications for several of our clients, achieving efficiencies in cost, performance, and quality.

Some examples of our work in this area include:

Bureau of Economic Analysis (BEA), RIMS II Online Order and Delivery System



MAR successfully upgraded BEA's Regional Input-Output Modeling System (RIMS), a widely used I-O table that estimates the impact of public and private sector projects/programs on jobs and labor-related earnings in industries and regions across the nation. Utilizing rapid prototyping methodology, the talented software engineers at MAR designed and developed the RIMS II Online Order and Delivery System, a SQL Server database-driven e-commerce solution in a .Net framework that allows companies to purchase and receive RIMS multipliers over the internet rather than by mail. This new automated process streamlined and improved order placement, processing, and delivery. Since the implementation of the online system, customer orders have increased by 40%.

Maryland Motor Vehicle Administration (MVA), Database Redesign



MAR is currently in the development phase of redesigning MVA's out-of-date Access 97 database systems. MVA has several complex data systems that provide critical capabilities to all aspects of their business operations, and these must be migrated to a new scalable database with a web-based front end.

The work to be accomplished under this task includes detailed design, testing, and implementation of the new database system in order to convert and migrate the existing Access 97 applications to the SQL Server/.Net platform. Additionally, knowledgeable MAR personnel are mentoring MVA IT staff members on the applied technologies so they can take over maintenance of the applications in the future. Migration of these databases to web-based .Net applications will result in systems that will not only be easier to maintain, but will also benefit from the availability, scalability, and manageability that .Net applications provide. The use of SQL Server will also eliminate Access 97 data corruption issues, provide better performance and reliability, and greatly improve data security.