

## Case Study: Sigma-Aldrich

### The Company

Sigma-Aldrich is a leading Life Science and High Technology company committed to Enabling Science to Improve the Quality of Life. Its chemical and biochemical products and kits are used in scientific research, including genomic and proteomic research, biotechnology, pharmaceutical development and as key components in pharmaceutical, diagnostic and other high technology manufacturing. The Company has customers in life science companies, university and government institutions, hospitals, and in industry. Over one million scientists and technologists use its products. Sigma-Aldrich operates in 40 countries and has 7,900 employees providing excellent service worldwide.

### Need for a Software Solution

The client was looking for an efficient real-time primer and probe design tool for offering value-added services to its customers. Sigma wanted to offer an online application for its customers to design specific and efficient oligonucleotides adhering to quantitative real-time PCR design guidelines. The need was to offer a best-in-class product with proven algorithms that could be integrated into Sigma's eCommerce systems.

Sigma also wanted a "Customer Relationship Manager" working behind the tool to track customer registrations, to record user engagement, and to offer personalized support. The solution needed to include product deployment, website hosting, and maintenance assuring zero downtime.

### The Challenge

Although the tool was expected to be based on Beacon Designer, the user experience and interface needed to be created online. HTML templates were embedded with primer / probe design modules and search options. The tool had to be designed to meet all of the oligo design requirements of the user along with keeping the interface apparent.

The application also needed the development of a scalable database management system to integrate the many facets and systems of the organization while providing the business team with the tools it needed for customer profiling and engagement.

### Expected Benefits

The client has been a long-time customer of PREMIER Biosoft and has been successfully using Beacon Designer for its qPCR assay design services. Sigma has also been recommending Beacon Designer to its customers for their assay design needs.

By providing free online primer and probe design software, especially for quantitative assays, Sigma-Aldrich expects to offer its existing customers value-added services and most importantly, generate sales leads to meet business expansion objectives. Using the expertise of PREMIER Biosoft in developing best-in-class quantitative real-time PCR design software products such as Beacon Designer and AlleleID, the client expects to provide its customers a sophisticated, yet easy-to-use tool for qPCR assay design needs.

"After years of successful use internally by our technical support team, we wanted to offer Beacon Designer functionality directly to our customers. We chose to use this powerful tool because it offers best-in-class performance and is highly regarded by the research community." says Tom Russell, Ph.D., Product Manager, Sigma Life Science.

Close collaboration between the Sigma-Aldrich's business team and PBI's development team, coupled with superior project management, enabled the successful launch of OligoArchitect™ Online.