Objectivity Case History

Customer Information

Customer: Southwest Medical Center

Industry: Medical/Biology
Application Domain: Human DNA Research
Status: Development
Platform: Solaris
Compiler: SparcWorks
Other Tools: Iona's Orbix

Application is to store and automate the analysis of human DNA structure on the Human Genome Project. The first phase of the project will be to automate the analysis process and provide a repository for the research. Initially pointers to the raw analysis files will be stored in Objectivity. In the second phase, the raw data will also be stored in Objectivity, and graphic visualization tools added to aid in post-analysis.

Buying Criteria

ODMG Compliance – ODMG compliance was important to maintaining their investment in process and analysis tools, and providing a standards based research repository.

Stability/Reliability – Although not a 24x7 operation, system down time effectively stops research progress in that further computational analysis cannot be performed, and review of previous analysis is also prevented.

Data Integrity – Always important in any database application, but even more so for DNA research. In many applications, corrupted data will be detected, either by a malfunctioning application, or a person noting improper data. In DNA research however, corrupted DNA strings would be very difficult to detect, and in fact might trigger intensive research to track down a "non-existent" genetic disease.

Why Objectivity

Scalability - Research analysis models generate up to 200 Megabytes a day, which are stored for a long period of time. They required a database system that could handle this volume of data that results from this type of daily growth rate. Objectivity provided a proven architecture to meet this requirement.

Distributed Architecture – One aspect of Objectivity's distributed architecture was being able to meet their scalability requirements. Another distinguishing factor that resulted was Objectivity's ability to leverage existing hardware investments. For example, a set of older PC's with 2 GB drives could be used collectively to store a large amount of data, reducing additional hardware requirements.

Contact Information

Objectivity Rep: Steve Fox
Customer Contact: Mujeeb Basit
Phone:
Email: