

## Agilent Life Sciences

Palo Alto, CA

Expershare was contracted by Agilent Technologies Life Sciences Division to assist with development of software feature enhancements associated with their proprietary genomics bio-analytic measurement products. The project involved not only extensive business systems analysis with researchers to capture and prioritize use cases, but also detailed decomposition of the use cases into observable, testable design artifacts for the development and QA teams. This project benefited from a dedicated Agilent QA group in India, but success was ultimately predicated on the clarity and consistency of the analysis and design artifacts that were delivered. Additionally, this project relied heavily on architectural code compliance, which was facilitated by extensive use of automated forward and reverse engineering techniques. The system has undergone several additional enhancements following this project, and has persisted as the core technology underlying Agilent’s current gene microarray platform: SureScan, SurePrint, and SureHyb.

Project:	Gene Array Analytics Workbench
Year:	2001 - 2003
Professional Services:	<ul style="list-style-type: none"> <li>• Business systems analysis</li> <li>• Requirements engineering</li> <li>• System design modeling</li> <li>• Reverse engineered model generation</li> <li>• Use case-driven test case development and traceability</li> </ul>
Key technologies:	IBM/Rational ClearCase, RequisitePro
Key Business Problem:	Not optimized for 24 hour dev cycle with India resources due to lack of consistency in requirements and design artifacts, resulting in unreliable test results, repeating test cycles and lower productivity.
Solutions/Deliverables:	Recommended standardization of use case models and specifications as test cases, and adherence to UML standards for code compliance, producing a concise handoff to remote (India) resources in the evening, and reliable and accurate test results in the morning for U.S. developers. Implementing a repeatable reverse engineering process promoted team agility, as well as consistency and scalability of the architecture .

*“Alex’s expertise helped to immediately increase the team’s momentum.”*

-Program Manager

*“...very adept at working across levels of the organization, and getting our internationally dispersed team all on the same page.”*

-Researcher, Bio technician

*“The code forward and reverse engineering methods recommended by Alex provided accurate, daily refreshed visualizations of the architecture.”*

-Java Developer