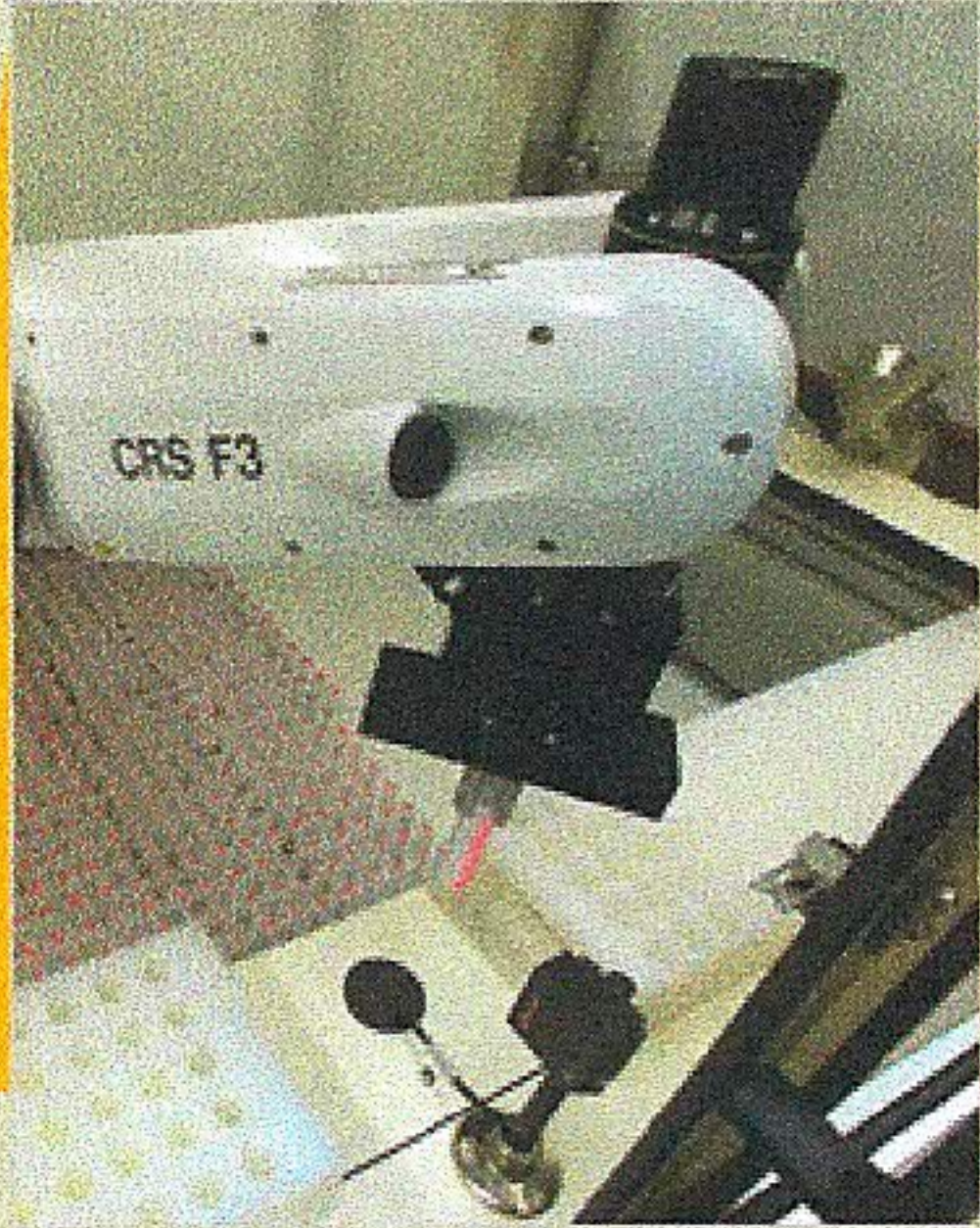


**CLIENT CASE STUDY**



**CLIENT PROFILE**

**Company**

Kaiser Permanente

**Business**

Nation's largest not-for-profit managed care organization

**Headquarters**

Oakland, CA

**Employees**

150,000 +

**Project Site**

Regional Laboratory  
Berkeley, CA

**Key Words**

Medical Lab  
Robotics  
Vertical Lift Module  
Freezer

## Software supports automated storage and retrieval system for medical test lab

System substantially improves retrieval times and labor cost

### Problem

Client's cytology laboratory received, tested, and stored thousands of pap smear (test tube) samples every day. Following a review of test results, it was normal for some samples to require follow up testing. For this reason, the lab retained all samples in minus 30F storage for a period of time before disposing of them. As volumes grew, so did the Client's concern about the labor costs and lead times associated with locating and retrieving specific samples from an inventory that numbered in the tens of thousands.

### Solution

Dove Tree developed and provided software to support the Client's automated test tube storage and retrieval system. Dove Tree subsequently developed additional software to enable a robot to replace the manual handling by lab technicians when large numbers of test samples are retrieved for medical research purposes.

### Results

- Substantially reduced labor costs
- Improved storage capacities
- Faster retrieval of stored individual test samples
- More timely and efficient mass-retrievals for broad medical research

### About the Project

Dove Tree's flexibility and extensive knowledge of machine controls and system/human interfaces enabled it to develop effective software for this medical lab application, despite the project being outside of Dove Tree's normal scope. The initial deliverable earned the Client's trust and lead to the follow up request.

