



Where software concepts come alive™

Business Domain

A microbiology testing facility

Project Type

System (LIMS) Management

Custom Lab Management Platform Reduces Client Communication Time by 30% Through Workflow Automation

Client

Laboratory equipment supplier which manufactures analytical instruments that conduct liquids analysis, such as automated liquid level monitoring, automatic warming of samples, and incubation of analytical cuvettes.

Project

Intetics developed a comprehensive equipment management software system for laboratory automation. The solution collects real-time data from lab devices during chemical analysis, generates insightful dashboards, and sends instant alerts to operators' mobile devices—ensuring timely intervention and improved workflow visibility.

Objective

The Client aimed to eliminate manual data exchange via fax, email, and spreadsheets by implementing a digital solution to automate sample collection, streamline testing workflows across various lab equipment, enable automated results distribution, and ensure compliance with multiple industry standards.

Team Reinforcement

The Client required additional development resources to build a reliable and scalable equipment management system from the ground up. Intetics provided a dedicated development team that worked in close collaboration with the Client's in-house experts. This long-term partnership allowed the team to deeply understand domain-specific requirements and deliver a tailored solution that improved laboratory efficiency and compliance.

Challenge

The Client needed a software system that could collect real-time data during chemical analysis and send immediate alerts to operators' mobile devices when specific conditions occurred. The main challenge was ensuring real-time responsiveness, seamless integration into existing lab processes, and reliable delivery of notifications to support timely decision-making.

- Manual data exchange via fax, email, and Excel caused delays and inconsistencies.
- Result distribution was slow, impacting communication with customers.
- No centralized system to monitor operations or send real-time alerts.

The Client lacked the technical expertise and development resources to build a real-time, integrated system that met industry standards and supported automated lab workflows.

Quick Facts

- ✓ 10 years of continuous cooperation
- ✓ **30% reduction in communication time** per customer via automation and CRM integration
- ✓ **20% faster sample processing** through streamlined workflows

Technologies

C# / Java/ JS / Backbone / jQuery / jspdf/ rickshaw/ bootstrap/ Visual Studio/ SQLite Pro / HDF5 Viewery

Solution

★ 01

Developed a custom equipment management system to support real-time lab operations and eliminate manual processes.

★ 02

Enabled data collection during chemical analysis, improving visibility into lab activities and reducing delays.

★ 03

Built visual dashboards that allow users to monitor ongoing processes and make informed decisions faster.

★ 04

Delivered a flexible deployment model — the system can be installed both on-premises and in the cloud.

★ 05

Provided a dedicated development team with domain expertise and long-term commitment, ensuring continuity and deep understanding of Client needs

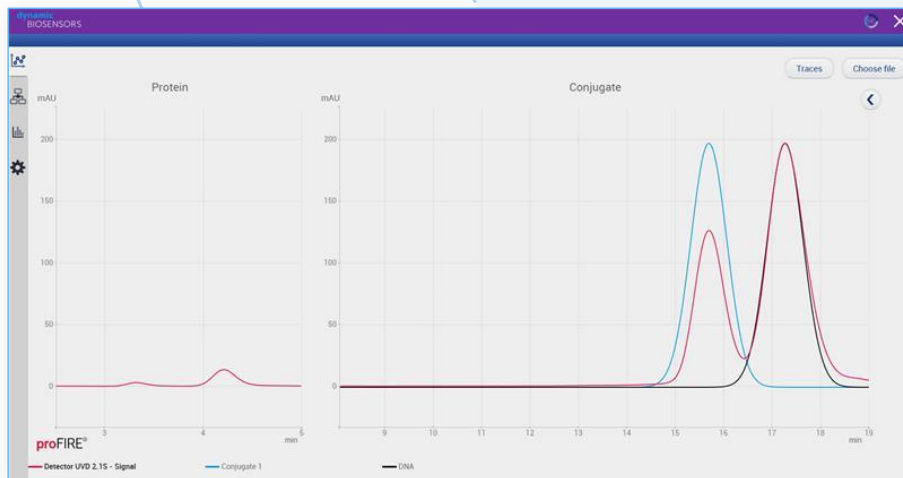
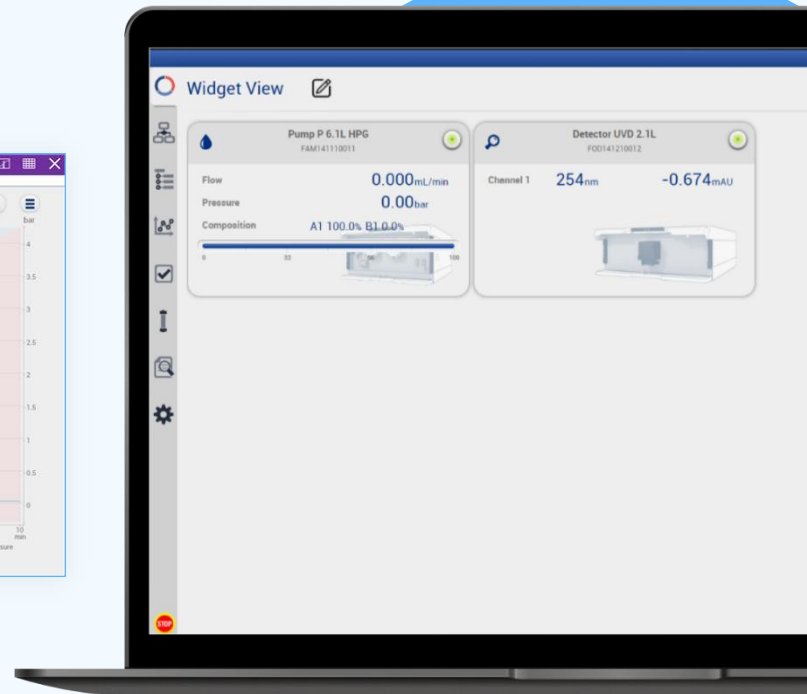
intetivics BIOSENSORS

Fractions

Fraction #	Conjugate 1	Conjugate 2	Free DNA	Residual
<input type="checkbox"/>	1	0%	0%	100%
<input type="checkbox"/>	2	0%	0%	100%
<input checked="" type="checkbox"/>	3	0%	0%	100%
<input type="checkbox"/>	4	0%	0%	100%
<input checked="" type="checkbox"/>	5	0%	0%	100%
<input checked="" type="checkbox"/>	6	0%	0%	100%
<input type="checkbox"/>	7	0%	0%	100%
<input type="checkbox"/>	8	0%	0%	100%
<input type="checkbox"/>	9	0%	0%	100%
<input checked="" type="checkbox"/>	10	28%	0%	72%
<input type="checkbox"/>	11	100%	0%	0%
<input type="checkbox"/>	12	100%	0%	0%

Report

Conjugate 1: 7%
Conjugate 2: 0%
Free DNA: 0%
Residual: 93%





Client Reference



Thanks to the custom lab management system developed by Intetics, we've significantly reduced communication delays and improved our workflow efficiency by over 30%. The solution has enhanced our decision-making process with real-time data and alerts, making our lab operations smoother and faster. This partnership has been a game-changer for our team!

Product Manager

Benefits and Results

- ★ Consolidated fragmented data into a single platform, **improving data accuracy by 20%** and enhancing operational efficiency.
- ★ Automated routine tasks, **reducing manual processing time by 25%**, leading to increased lab throughput.
- ★ **Improved decision-making** with real-time alerts sent directly to operators' mobile devices.
- ★ **Enhanced compliance and lab efficiency** due to elimination of manual data exchanges (fax, email, Excel).

Techstack:

C#, Java, JS, Backbone, jQuery, jspdf, rickshaw, bootstrap, Visual Studio, SQLite Pro, HDF5 Viewery

Team: 30+

Project Manager,
Business Analyst,
Java Developer,
Support Engineer