

TrakCare LAB

Breakthroughs in patient outcomes, lab performance and clinician communications



Software for Connected Healthcare



More power for your lab, greater benefits for clinicians and patients

The demands placed on medical laboratories are growing larger every day. Clinicians are demanding more tailored reporting of results, and integration of results into electronic medical record (EMR) systems. Public health agencies are demanding information for bio-surveillance and a proactive approach to disease prevention. The mountain of complex data that labs now manage is stretching most laboratory information management (LIMS) systems to their limits.

TrakCare LAB, from InterSystems Corporation, is an advanced and proven LIMS that enables you to meet all of these new demands. With sophisticated functionality for all of the specialized departments within a lab (including Hematology, Biochemistry, Blood Transfusion, Endocrinology, Microbiology, Cytology, Immunology, Histopathology, Serology, Virology, and Toxicology), TrakCare LAB delivers the benefits you would expect from a best-in-class LIMS: accurate results reporting, improved laboratory efficiency, better business management, and greater customer satisfaction.

InterSystems is there for you, no matter where you are

TrakCare LAB has been deployed in diverse languages and medical cultures in 14 countries and in more than 400 installations, with projects ranging in size from a single lab to the laboratory network of an entire nation.

TrakCare LAB comes with the full support of InterSystems, with its headquarters in Cambridge, Massachusetts, and offices in 24 countries. For more than 30 years InterSystems has been a worldwide leader in health-care information technology, and in providing unparalleled customer support.

“Two main benefits of our switch to TrakCare LAB stand out. First is the higher level of accuracy and patient safety we’ve achieved, and second is the high performance that’s enabled us to expand our range of tests and deliver results even faster than before.”

Beatriz Fernández Forner, Technical Director, Echevarne Labs, Spain


Unmatched strength from InterSystems’ technology

TrakCare LAB incorporates InterSystems **Caché** database, InterSystems **DeepSee** real-time business intelligence software, and InterSystems **Ensemble** integration technology, giving it unparalleled strength in data management, reporting, and integration with other systems. Designed in collaboration with medical and laboratory professionals, it includes features that will enable you to support the changing requirements of your customers, the addition of new devices, and the growth of your lab well into the future. Compared with competing lab automation solutions, TrakCare LAB is:

- Faster, more accurate, and more productive
- More flexible and adaptable to the way you work
- Easier to integrate with other information

InterSystems advanced software technology in TrakCare LAB

- InterSystems **Caché**® is the high-performance database that provides the foundation for the majority of clinical applications used by the world’s leading hospitals, labs, and government healthcare organizations.
- InterSystems **DeepSee**™ is software that makes it possible to embed real-time business intelligence capabilities in transactional applications for better operational decisions.
- InterSystems **Ensemble**® is a seamless platform for integration used to create connected healthcare systems that help improve care delivery and reduce costs.



TrakCare LAB makes your lab faster, more accurate, more productive

TrakCare LAB's thoughtful design and powerful technology enables your lab to save time and complete more work each day. And it provides the scalability and performance required for cost-effective growth of your lab as you add more instruments, more users, and more lab locations.

TrakCare LAB's high-performance capabilities enable you to continuously improve work processes, and make TrakCare LAB the best choice for a new LIMS. Its performance benefits include:

- Improved real-time decision making
- Faster, more flexible reporting and EMR integration
- More efficient lab management
- Ability to keep years of data online for historical reports, analysis, and auditing
- Improved bench productivity
- Fewer errors
- Better bottom-line results

Improved decision making with real-time business intelligence capabilities

TrakCare LAB's built-in business intelligence capabilities provide access to management information through reports, graphs, and interactive dashboards based on up-to-date data and your key performance indicators. For example, a dashboard showing where lab utilization is high or low will enable you to more effectively manage workloads throughout the day, and prevent workflow interruptions.

TrakCare LAB also can notify specified recipients when test results or quality control, infection control, or other critical data falls outside of accepted ranges, improving your organization's responsiveness to such events. And it can aggregate this data to support the bio-surveillance efforts of public health agencies or other organizations.

Better customer service with personalized reports and EMR integration

TrakCare LAB enables you to easily configure reports and customize the way you present data to clinicians. And through its InterSystems Ensemble technology, TrakCare LAB provides an easier, faster way to integrate results directly with clinician Electronic Patient Records (EPR) or regional electronic health records. In addition to quick delivery of results and fewer chances for error, integration with clinician systems gives you a clear competitive advantage over labs without this capability.

More efficient lab management with results and operational reporting

With a significant number of report templates, for results reporting as well as for operational management of the lab, TrakCare LAB satisfies the requirements of even the most demanding clinicians and laboratories. Templates are user-customizable to suit your laboratory's report types and formats. In addition, TrakCare's underlying Caché database is fully ODBC-compliant, allowing you to use third-party reporting tools to create custom reports on an ad-hoc basis.

Because TrakCare LAB's database stores data so efficiently, users of TrakCare LAB can keep years of data online for predictive analysis, the visualization of historical trends, and auditing.



Improved bench productivity with a rules engine and task automation

TrakCare LAB is a comprehensive, rules-driven process automation solution.

It greatly reduces menial, repetitive tasks, allowing lab workers to focus their attention on work that has the most value to the business. The system enables creation of rules that drive specific lab processes, ensuring consistent performance and reducing errors. Rules can include automated communication with referring clinicians for faster service and proactive attention to problems, as well as automatic actions and alerts within the lab based on predetermined events.

Fewer errors through powerful quality control features

TrakCare LAB incorporates a fully unified quality control module for manual assays and interfaced instruments, including Levy-Jennings and Youden Plot graphing capabilities, as well as inter- and intra-laboratory analyzer quality control comparisons. The system reduces errors in the pre- and post-test phases through bar-code identification of samples. Plus, TrakCare LAB's analyzer interfaces provide automatic entry of samples into the devices and delivery of results, eliminating manual data entry and its potential for errors.

Better bottom-line results with complete financial control

TrakCare LAB helps you realize better results on the bottom line, as well as on the test bench. Its financial management capabilities include:

- Built-in billing functionality for fast invoicing, plus third-party payment processing and flexible financial reporting
- Complete and accurate billing, as TrakCare LAB uses a patient-centric data model that keeps all patient information – clinical, administrative, and financial – ready and available in one location
- Financial, workload, and outcomes comparisons so your management team can better understand the state of the business at any time



TrakCare LAB is more flexible and adaptable to the way you work

TrakCare LAB meets all of the operational needs of the modern medical laboratory. Figure 1 illustrates the extensive range of TrakCare LAB modules and functions.

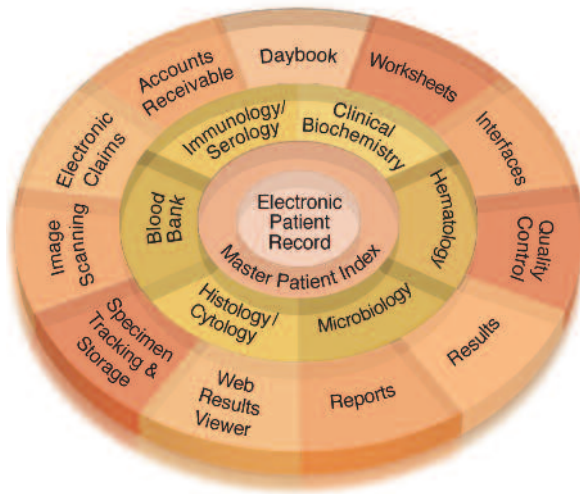


Figure 1. TrakCare LAB architecture, modules, and functions.

InterSystems understands that for any LIMS to be adopted and used successfully, it has to adapt to local languages, workflows, and user preferences. TrakCare LAB addresses these issues through configuration, connectivity, and localization.

Configuration

TrakCare LAB adapts quickly to your specific work culture and workflows through configuration settings instead of programming. It comes with a series of powerful tools that allow you to configure the system around your workflows, and to manage access to modules and data. For example, a robust rules engine controls workflow to ensure the consistency and efficiency of the activities undertaken. TrakCare LAB is pre-configured with the workflows common to most laboratories. With InterSystems' experience in multiple markets around the world – from the smallest to the largest labs – we can configure workflows to match your specific needs.

Connectivity

TrakCare LAB conforms to your work environment through built-in integration with hundreds of laboratory instruments, and automatic results processing. The system interfaces with and monitors instruments centrally, eliminating the need to connect a computer to each instrument.

In addition, with its embedded InterSystems Ensemble rapid integration technology, TrakCare LAB can automate the flow of work and data into and from third-party healthcare information systems, eliminating the time-consuming task of creating point-to-point interfaces for each one.

Localization

TrakCare LAB's extensive localization capabilities enable users to interact with the system in their native language, and in a way that is consistent with the local medical culture. These capabilities include:

- The ability to display multiple languages on the same screen and support multiple currencies
- Language preferences for different users
- The ability to customize screen layouts to support local language, customs, and practice requirements
- Unicode and the use of right-to-left languages

TrakCare LAB is easier to integrate with other information systems

TrakCare LAB is an independent module of the TrakCare healthcare information system (HIS). For users of other HIS products, TrakCare LAB's embedded Ensemble integration platform ensures interoperability. TrakCare LAB uses Ensemble's comprehensive HL7 messaging capability, and other industry standards, for bidirectional information sharing within your HIS.

Labs that are part of a larger healthcare organization already using TrakCare will find that TrakCare LAB shares its underlying technology, reducing the time and cost of integration.

Benefits include:

- Simplified sharing of information
- Faster implementation
- Lower costs
- Easier maintenance

TrakCare users can generate laboratory orders from within the TrakCare EPR, and these orders appear in the LAB module for processing. Likewise, key data entered in TrakCare LAB is immediately available throughout the TrakCare system. Verified results from lab tests, for example, appear immediately in the TrakCare EPR for use by clinicians. TrakCare LAB also uses TrakCare's master patient index technology to ensure accurate and consistent patient identification, and fewer errors.



The benefits enjoyed by TrakCare LAB customers

Choosing TrakCare LAB for your organization will help you save time and money in nearly all facets of your operation. And it will help you achieve the highest levels of accuracy and patient safety, with the fast results delivery that clinicians need for better decision-making and better care. The high performance of TrakCare LAB will support your organization well into the future as you expand the range of tests you deliver, as bio-surveillance and real-time operational business intelligence become central to how your lab operates, and as your customer base grows. TrakCare LAB is delivering these benefits today for our customers in a wide variety of settings. For example:

- In a statewide laboratory deployment in Brazil, TrakCare LAB handles sample processing and results reporting covering the state's six million citizens. The centralized use of TrakCare LAB reduces costs for support and training, distributes workload among sites for efficiency and faster turn-around, and provides a single database for public health and business analysis.
- The South African government is deploying TrakCare LAB across the country's 258 public health laboratories serving a population of 44 million.
- A commercial lab with 45 locations in Europe uses TrakCare LAB to process two million orders and twenty million tests a year.
- A local health authority in Italy switched to TrakCare LAB and achieved the higher laboratory productivity and rapid results delivery it needed to better serve its clinicians, and improve care for its patients.
- A major, state-owned healthcare facility in Russia uses TrakCare LAB to increase test accuracy, speed results reporting, and improve overall clinical throughput.



Advanced software technologies for breakthrough applications

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The logo for InterSystems, featuring the word "INTERSYSTEMS" in a stylized, blue, serif font. The letters are closely spaced and have a slightly irregular, hand-drawn appearance.