

Forensic Navigator and the LabVantage Portal:

SECURE ACCESS FOR EFFICIENT OPERATIONS



LIFE CYCLE COVERAGE

A portal provides all stakeholders across the full forensic life cycle with access to case data, for rapid resolution to the case and confidence in the investigative result.

From LIMS to FIMS

Solving crime relies increasingly on a broad cross-section of scientific disciplines, including almost every field of the physical, life, and computer sciences. Whether the work involves identifying a complex designer drug used in a date-rape case, amplifying DNA collected at a murder scene, or searching for evidence in a computer hard drive, crime lab personnel and other justice system contributors rely heavily on automated laboratory information management systems (LIMS) to manage the tracking of case samples and related data throughout their life cycle, before, during, and after the laboratory processes.

The scientific work related to solving criminal cases is not confined to the lab; it begins at a crime scene and extends through the investigative process to the courtroom, and beyond. Increasingly, since the rise of DNA evidence as a key determinant of guilt or innocence, the scientific chain of evidentiary custody can extend for decades in cold cases. Along with novel approaches to solving crimes has come an expanded LIMS—called forensic information management systems (FIMS)—to address specific needs of the forensic laboratory and all the various participants of the justice system who depend on the lab.

Whatever type of crime has been committed, and however the investigation proceeds—from the time police arrive on the crime scene to the day of either conviction or exoneration of the suspect(s)—everyone involved can benefit from a FIMS, like LabVantage Forensic Navigator™, to maintain an unassailable electronic chain of evidence custody.

Turning Challenges Inside Out

Even the smallest crime lab will typically be staffed with technicians who receive evidence and handle property, forensic examiners, and quality control personnel. Everyone in these roles will be regular, intense users of the FIMS, performing numerous tasks on an ongoing basis. As regular users, they require a thorough understanding of what the FIMS can do, as well as access to the system's full array of functionality and all relevant data.

But, as noted, the work inside the lab is just part of the forensic puzzle. Others also need access, but usually only to certain functionality and a limited dataset. For example, crime scene technicians will not need to use the entire FIMS, but will need to log



evidence, perform some on-scene examinations, and initiate the chain of custody at a minimum. Similarly, law enforcement officials or attorneys may only need to occasionally check the status of a case or view an examiner report. Managers may only need to review a statistical performance report once a month.

Each of these people, and others, only need to use a subset of specific functions within the system. They do not need access to data that is beyond their purview nor do they need to perform functions beyond their role. And for security reasons, organizations simply do not want to grant system-wide access to people outside their lab.

Without secure, easy access to the FIMS, the overall operation is not taking full advantage of what the system offers. The solution is a portal into the FIMS that can be made available to external resources on a very limited and specific basis. This provides a highly efficient, secure, and cost-effective way to ensure the entire extended network of specialists can contribute data and make requests in real time, while helping automate and simplify processes without compromising security or compliance.

Without such portal access, forensic stakeholders can encounter significant operational inefficiencies, including:

- **Delays** — Work processes in the lab are disrupted every time an external resource needs information, and clients can become frustrated by delayed responses to phone calls, emails, and other inquiries.
- **Data Integrity and Accessibility** — Data entry errors inevitably occur when humans enter information manually that they first received from other person(s), and without shared access real-time information is unavailable during the request life cycle.
- **Security** — Without limiting access to the entire system, organizations run the risk of evidence or processing practices being flagged in an audit or, worse, being introduced in a trial. This can also create access that could be targeted by cybercriminals.
- **Training** — Extending access to the FIMS requires external users to be trained to the same level as internal staff for the features they use, which can take up to a week. And, because the body of external personnel constantly changes, training must become an ongoing activity.

The Right Tools, Combined

Portals can be extremely complex, and the term has become so ubiquitous that it can be easily misinterpreted. Quite simply, a portal is a secure subset of your system data that can be made available to external entities with very specific and limited system access requirements. It provides a highly effective window into your system that enables much simpler interaction than the comprehensive system itself. Portal users do not log in through the same means as FIMS users; instead, they authenticate through a proxy server and firewall to view a subset of the system data. In essence, they are viewing data from the same database as internal, full-access users but with significant limitations on what they can see and do.

LabVantage's secure web portal, which also supports our popular LIMS—the market's most modern and flexible LIMS—protects valuable and sensitive data, while eliminating the need for manual requests for tests and other services (See 'The LabVantage Advantage: A secure, intuitive portal experience'). A new, next-generation user interface makes portal features easier than ever to use for those outside the lab who need access to data but who are not familiar with LIMS technology. Designed using an approach to applications that allows users to tailor the view to their needs without writing any code, the LabVantage portal runs on all devices, like desktops, tablets, and phones, and has all the tools and functions you need to complete your forensic work—grouped in one place.

SECURITY, ASSURED

A proactive approach to cybersecurity ensures the LabVantage portal provides secure access to LabVantage Forensic Navigator.

[Read about it on page 3.](#)

Apps can be used for multiple purposes including account management, evidence submission requests, examiner report retrieval, and any functions that you create as personally configured apps.

The portal can be used for several purposes beyond evidence pre-log. For example, the portal is the best place for a law enforcement officer to request services for the evidence items and later view the lab's response to the service request. Seeing the response by the lab for requests for service can minimize time wasted transporting evidence that is not needed, possibly also resulting in fewer chain-of-custody transactions for the evidence.

Using the portal, an officer can also follow the status of the evidence as it moves through the examination process. This is also where the officer or prosecutor will retrieve released analytical reports. The portal could also be used to communicate about investigative leads such as CODIS/NIBIN/AFIS hits and to provide instructions to property management personnel about disposition decisions.

An additional, very important application of portal functionality is to initiate tracking of sexual assault kits from the hospital or sexual assault treatment center through testing, with updates provided to survivors.

Query-related delays become a thing of the past, with external resources logging in quickly and getting information they need without disturbing lab staff. And, when that external resource logs into the portal, they see information as it exists in the moment, rather than a stale piece of data that may have changed during the time it took for someone in the lab to respond to the original request.

All of this equates to external clients being self-sufficient, removing internal FIMS users from the process that allows other forensic stakeholders to make requests and gather information.

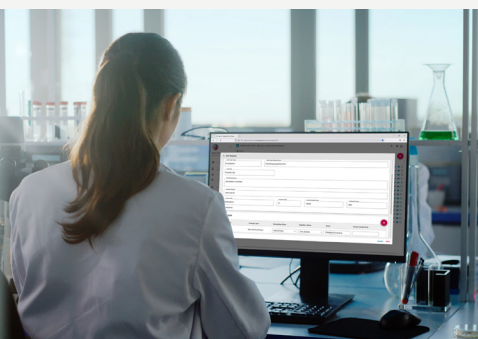
The LabVantage Advantage: A secure, intuitive portal experience

In conjunction with LabVantage Forensic Navigator, the LabVantage portal is a complete, integrated solution that allows criminal investigation labs to provide limited and indirect access without compromising either security or compliance, enabling non-lab personnel to easily enter sample login information, perform status checks, and view completed analysis reports.

Throughout the process, data security remains paramount, thanks to LabVantage's proactive approach to cybersecurity.

The latest releases of our cornerstone LIMS have been developed specifically with a focus on cybersecurity, taking both customer input and our own research into account.

Our configurable security protocols and permissions meet the highest regulatory requirements and data is encrypted in multiple stages, including all data within cloud servers and in the VPN tunnels associated with the subscription-based SaaS version of Forensic Navigator. LabVantage has also been highly proactive in terms of ensuring security through penetration testing and other activities that allow users to stay in front of any potential cyberattacks.





To evaluate and scan source code for potential vulnerabilities, LabVantage uses SonarQube, as well as Atlassian's Jira, which allows us to track code closely and increase the visibility of potential security issues during development. We also use "magic byte" detection—a list of file signatures and data used to identify or verify file contents—to ensure malicious files cannot be uploaded, and review all third-party activity.

In addition to pursuing the highest level of data security, LabVantage also strives to make the interface experience for Forensic Navigator unparalleled for portal users. Our responsive, attractive dashboard is simple and intuitive, requiring little or no training. It works on any device—including computers, tablets, and smartphones—and is completely browser agnostic.

For lab administrators, our self-support approach leverages existing LabVantage knowledge of functions, configuration tools, and other existing skills.

Better Results, Faster

A self-supportable solution that enables requests for services, ordering kits, retrieving results and reports, tracking shipments, and more—LabVantage's portal was designed for maximum flexible configuration. Apps allow users to tweak portal functionality to meet their unique needs without writing code.

The portal apps employed by LabVantage group all the tools and functions a user needs to complete their work—dashboards, webpages, queries, reports, etc.—in one place. Forensic stakeholders can employ more than one app, depending on what is required, to complete their work. For example, separate apps could be formatted to provide portal account management, submission requests, and kit requests, or users can configure their own custom app.

Whatever a forensic investigation needs, the combination of Forensic Navigator and the LabVantage portal can deliver results faster, ensuring an optimal access and retrieval process through direct access in a highly secure environment.

TO LEARN MORE about accelerating your forensic investigations and ensuring the integrity of your evidence handling and analysis, visit labvantage.com/forensic or contact us today.



LabVantage Solutions, Inc.
265 Davidson Avenue, Suite 220
Somerset, NJ 08873
Phone: +1 (908) 707-4100

www.labvantage.com

ABOUT LABVANTAGE SOLUTIONS

A recognized leader in enterprise laboratory software solutions, LabVantage Solutions dedicates itself to improving customer outcomes by transforming data into knowledge. The LabVantage informatics platform is highly configurable, integrated across a common architecture, and 100% browser-based to support hundreds of concurrent users. Deployed on-premise, via the cloud, or SaaS, it seamlessly interfaces with instruments and other enterprise systems – enabling true digital transformation. The platform consists of the most modern laboratory information management system (LIMS) available, integrated electronic laboratory notebook (ELN), laboratory execution system (LES), scientific data management system (SDMS), and our advanced analytics solution (LabVantage Analytics); and for healthcare settings, a laboratory information system (LIS). We support more than 1500 global customer sites in the life sciences, pharmaceutical, medical device, biobank, food & beverage, consumer packaged goods, oil & gas, genetics/diagnostics, and healthcare industries. Headquartered in Somerset, NJ, with global offices, LabVantage has, for four decades, offered its comprehensive portfolio of products and services to enable customers to innovate faster in the R&D cycle, improve manufactured product quality, achieve accurate record-keeping, and comply with regulatory requirements. For more information, visit labvantage.com.

For more information, visit www.labvantage.com.