



The Laboratory Information Management System

www.ebiosys.com



Introduction

eLab is a modern work list orientated, protocol driven, off the shelf Laboratory Information Management System (LIMS) designed to improve sample throughput and reduce IT costs in a single industry compliant solution.

A revolutionary user interface built on a next generation data management platform

While designing eLab the team at eBioSys took on the challenge of making a LIMS system that was powerful and secure, yet simple to use. Building on recent advances in hardware and software the team has risen to the challenge of delivering a revolutionary user interface built on a next generation data management platform. The result is a system that allows users to get more out of their work and deliver better results faster.

In the world of modern laboratories the focus is on data quality. This is the world for which eLab was designed. We have made substantial investments to better connect users to their data and ensure the highest standards of industry compliance. In short you get more work done for less effort and achieve greater confidence in your results.

To meet business-critical operational requirements and maintain a competitive advantage laboratories are seeking to implement simpler and easier to manage systems that reduce acquisition and support costs while maintaining flexibility to meet changing business needs. eLab is the comprehensive, cost effective solution to laboratory information management.

Download a fully functional trial version of eLab from our website (www.ebiosys.com) and experience the power of eLab today.

About Us

Composed of a diverse team of leading medical researchers and industry experienced IT professionals, eBioSys is committed to providing innovative, high quality, cost effective software solutions to the biological sciences.



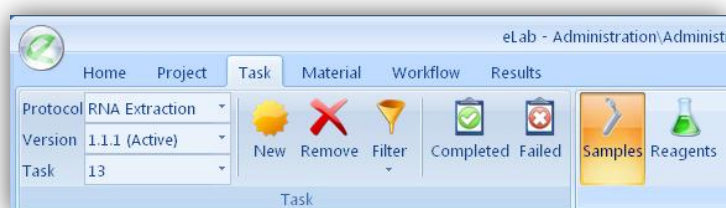
Powerful Simplicity

eLab features an intuitive streamlined workspace that is easy to use and is supported by a contextually aware menu system. Employing a user interface that works the way you do provides the foundation for better productivity and a more leveraged data environment.

The Menu System

The user interface has been separated into key areas of functionality by a set of tabs that when selected display the most relevant commands. Tabs are used to group commands for activities such as project management, sample search, and creating workflows. Each tab presents the appropriate commands as they are required, simplifying the operation of eLab and reducing the time required to master the system.

*Spend less time
trying to get the
application to do
what you want*

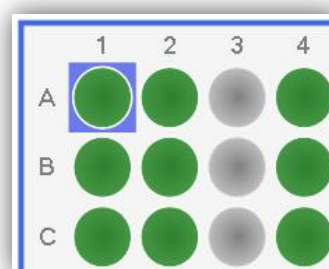


Container-View vs. Data-View

When working with samples users have the option of working with virtual containers (container-view) or powerful data centric views (data-view). Container-views facilitate speed and accuracy of positioning samples, data-view helps users filter and sort samples based on the attached meta-data.

Drag and Drop

Manipulate samples as you would at the bench using intuitive drag and drop techniques. Move samples within containers by simply selecting the samples you want and dragging. If you require more power a comprehensive menu system allows you to fine tune sample placement.



Project Management

eLab provides powerful project management tools so you can manage projects more efficiently and effectively. Stay informed, control project work, maintain deadlines and make better decisions based on real-time business metrics.

The project management screen maintains a comprehensive visual representation of the status of each sample at every stage of the project. Know the complete status of a project at a glance and choose the view that helps you track the data relevant to your needs.

Make better decisions based on real-time business metrics

The screenshot shows the eLab Project Management interface. At the top, there are dropdown menus for 'Project' (BioPharm) and 'Subproject' (Project 1). To the right of these are several action buttons: 'New' (green plus), 'Edit' (yellow pencil), 'Remove' (red X), 'Add samples' (green plus with key), 'Remove Sample' (red X with key), 'Print' (printer icon), 'Export' (blue document icon), 'Best' (thumbs up), 'Most recent' (clock), and 'Sample history' (key). Below these is a 'Project Actions' label. The main area is a table with columns: 'Sample Id', 'RNA Extraction', 'cDNA Conversion', 'PCR', 'Sequencing Cleanup', and 'Sequencing Reaction'. The table contains 16 rows of data, with some cells highlighted in green (indicating completion) and some in red (indicating a problem or error).

Sample Id	RNA Extraction	cDNA Conversion	PCR	Sequencing Cleanup	Sequencing Reaction
11-1	11-4	11-5	11-6	11-7	11-8
12-1	12-4	12-5	12-6	12-7	12-8
14-1	14-4	14-5	14-6	14-7	14-8
15-1	15-4	15-5	15-6	15-7	15-8
17-1	17-3	17-4	17-5		
18-1	18-3	18-4	18-5	18-6	18-7
20-1	20-3				
21-1	21-3				
23-1	23-3	23-4	23-5	23-6	23-7
24-1	24-3	24-4			



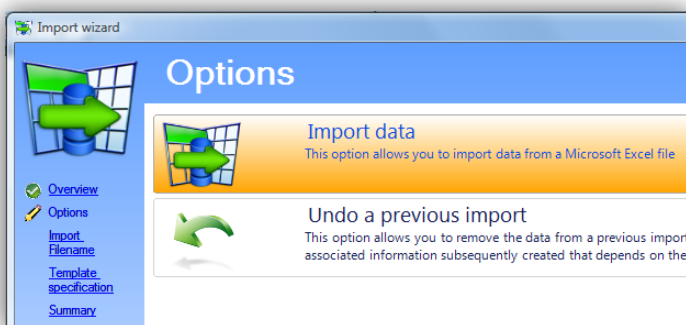
Sample Management

eLab makes it simpler to manage your samples. Employ advanced searching capabilities to find samples based on attached meta-data (e.g. project, task, user or membership details). These results can then be sorted and viewed in the way you want.

Sample Import

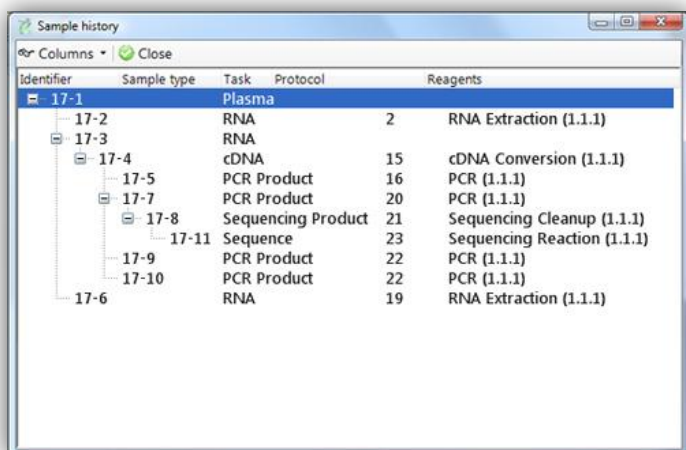
The import wizard empowers users to import sample data like never before. The wizard guides users through the process of specifying and uploading the required data into the system without the need to manipulate Microsoft Excel spreadsheets.

Import sample data like never before



Sample History

The sample history screen displays the passage of samples from one task to another and between users. Completely track the movement of your samples. Better understand how samples relate to one another and quickly isolate problematic samples or procedures.



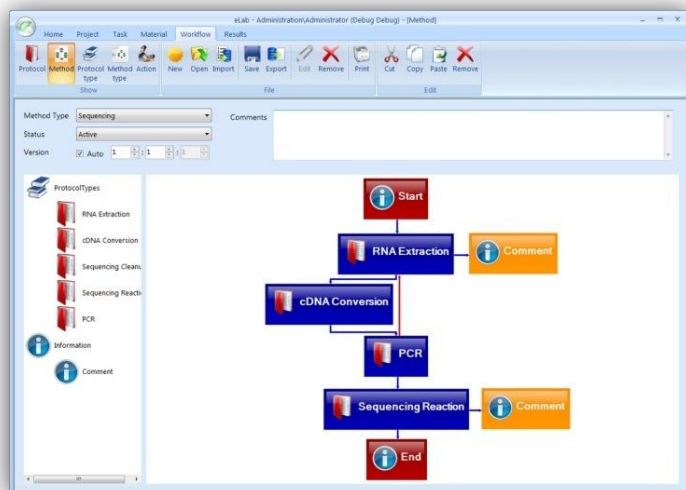
Workflow

eLab workflows define how activities are performed and are interrelated. The workflow builder graphical interface simplifies the creation of workflows by allowing users to drag and drop appropriate components from the workflow toolbox, set their properties, and link the components with constraints. Workflows are an effective method of enforcing business rules and improving laboratory practices. The true power of workflows is fully unleashed when they are applied to routine work.

Automatically disseminate changes to laboratory processes

Some of the key benefits of eLab workflows are:

- **Process Control**
Easily update and automatically disseminate changes to laboratory processes.
- **Standardisation**
Ensure that the same version of a process is applied to all samples at each stage of a project.
- **Versioning**
Automatically ensure that all changes to processes are clearly identifiable.
- **Collaboration**
Share your processes by importing and exporting workflows in the XML standard format.
- **Quality Control**
Ensure that your processes have gone through proper quality control before being elevated to production status.

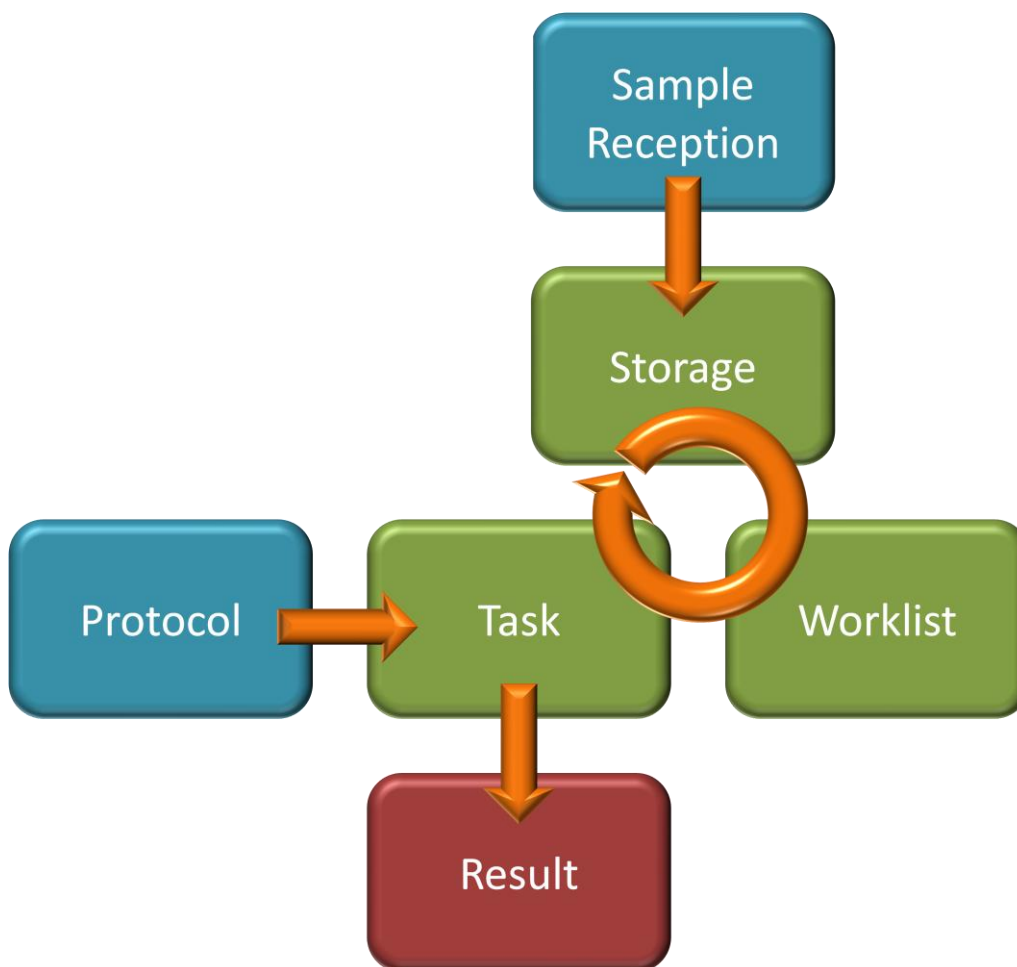


Protocol Workflows

Protocol workflows assist task level activities by ensuring that users are presented with the most relevant sample, reagent, and procedural details when and where they are required.

Method Workflows

Method workflows automate the flow of samples from one protocol to the next. Integrating with project management this feature becomes a powerful tool that allows routine work to progress with minimal effort, but quickly highlights any potential problems.

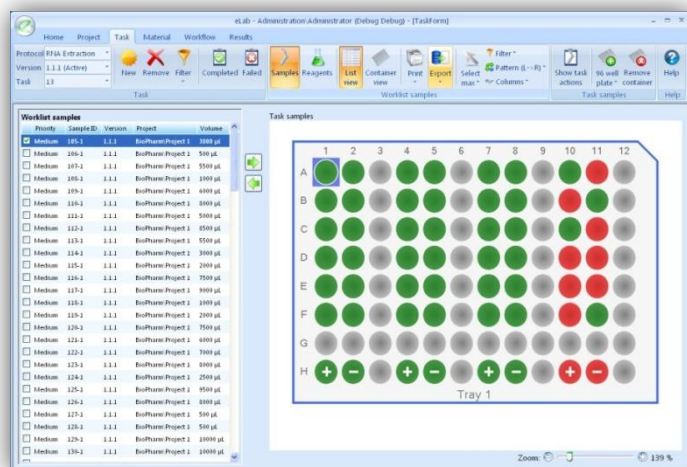
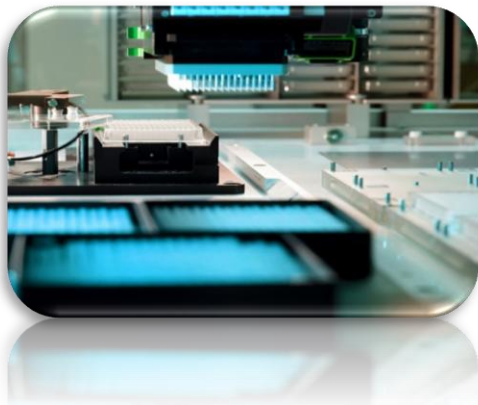


Tasks

When it's time to do manual work the task screen is the essential resource for rapidly completing assigned activities, providing immediate access to all the information users require.

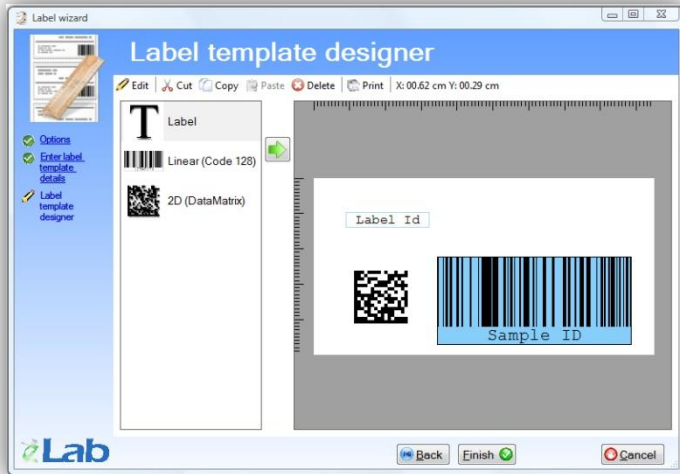
Present the data in the format most relevant to your needs

- Samples selected from a work list or directly assigned to the task can be displayed in a visual representation of their storage containers or in a data centric view.
- Reagents are automatically filtered based on the applying protocol.
- Powerful data manipulation tools allow eLab to present the data in a format that is most relevant to your needs.
- Create and add visual representations of the actual containers that the work will be performed in.
- Manipulate samples as in real life by selecting and dragging them within containers.
- Identify and flag contaminated samples.
- Indicate the success or failure of each sample within a task.
- Rapidly create sample and container labels.
- Print the relevant protocols or proformas.
- Export data the way you want with a choice of Microsoft Excel, text, CSV, or XML based formats
- Position samples manually or with the assistance of



Label Printing

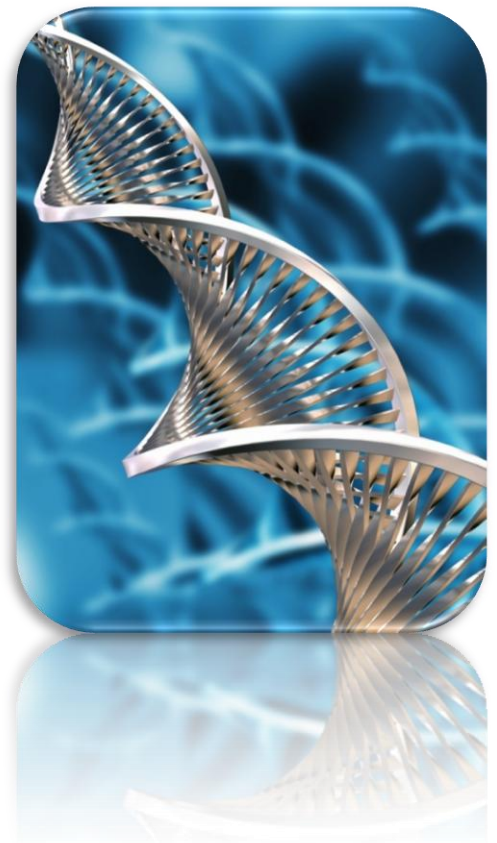
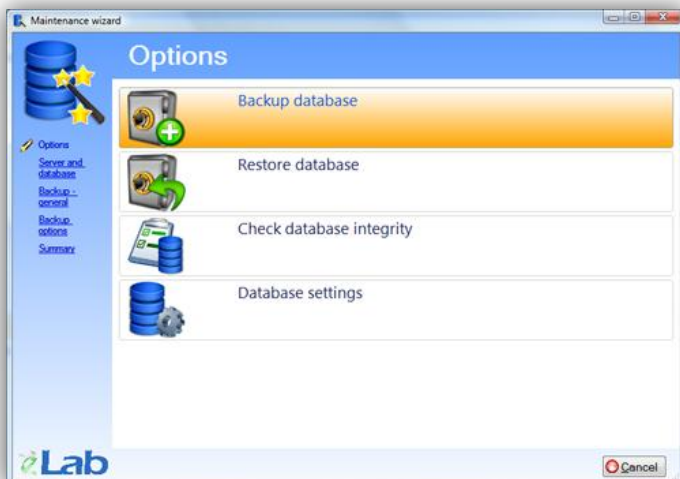
The accurate identification of samples, reagents, results and containers provides the foundation for improving data quality. eLab integrates an easy to use label designer that creates custom templates for the creation of labels at critical points in the laboratory workflow.



*Spend less time
worrying about your
data*

Data Backup

Protect your valuable data using eLab's powerful inbuilt backup and recovery tools. Create full backups, or simply backup recent changes. If something does go wrong, an intuitive wizard can guide you through the restoration process, allowing you to recover to the most recent point or a specific point in time. eLab's backup and recovery tools mean you spend less time worrying about your data.

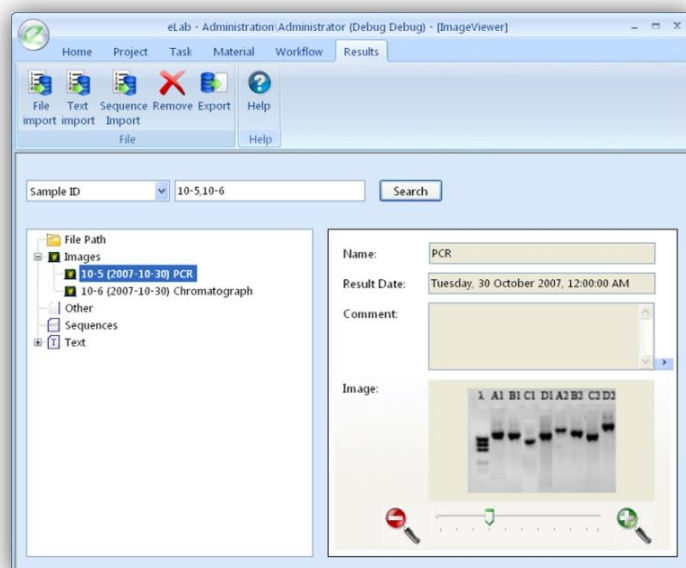


Results and Document Management

eLab incorporates powerful, simple to use data and document storage capabilities. A wide range of documents and results can be securely uploaded into the system, alternatively create links to data maintained by your existing information storage infrastructure. Efficiently collect, organize and store data relating to your samples at each stage of the laboratory process.

Ensure a direct link between your samples and your data

- Integrated document management conveniently allows the attachment of all results when completing or undertaking tasks.
- Upload machine readable and human readable documents.
- The results screen allows for quick access to the relevant results through a hierarchical representation of the data attached to one or more samples or projects.
- Export your results to a location of your choice at anytime.
- Maintain better laboratory practices by ensuring a direct link between your samples and your data.
- Some common types that can be stored in eLab are text, images, sequences, chromatograms, Word and Excel files.



Interoperability

Interoperability features of eLab allow you to leverage existing infrastructure to get the most out of your data and to collaborate better. Use eLab to gather, collect, and organize your data then choose from a wide selection of formats to export your data to the systems that you use for analysis or making business decisions. For example, eLab makes it simple to export sample and reagent data from a task for integration with robotics and other analytical instruments.

Some of the common data types available for interoperability include: text, CSV, Microsoft Excel, XML, chromatogram, image

*Get the most out of
your data and
collaborate better*

Off the Shelf

To enhance business value, laboratories are increasingly turning away from in-house software solutions with the associated uncertainty of delivery times and the expense of maintaining development teams. Instead laboratories are seeking to create easier to manage IT environments that reduce acquisition and support costs but also align to changing business needs. eLab is an off-the-shelf solution that provides flexibility and power while driving down IT costs through:

- Better alignment of financial resources with business priorities. Eliminate the need to undertake software development and unlock resources for core areas of laboratory work.
- Simplified infrastructure management. Minimize mistakes and streamline the management process and automate laboratory workflow.
- Reduced total cost of ownership. Achieve a lower cost of acquisition and drive down capital investment.
- Scalable. The initial purchase of eLab includes a generous volume of samples. However, if you do exceed the initial volume of samples you can expand the storage capabilities of the system through the purchase of an additional sample license from eBioSys.
- Upfront pricing. Unlike some competitors, our pricing structure is completely transparent and readily available on our website, www.ebiosys.com.



Technology

In the past many LIMS have been web based rather than Windows based applications, sacrificing responsiveness and a richness of user interface for ease of installation. However, eLab is able to take advantage of the best of both technologies through a smart client design.

A smart client approach enables eLab to utilize local computing power to provide a richer user experience with better graphics and faster response times. Smart Client deployment technology makes installation as simple as possible overcoming three traditional hurdles:

- Updates

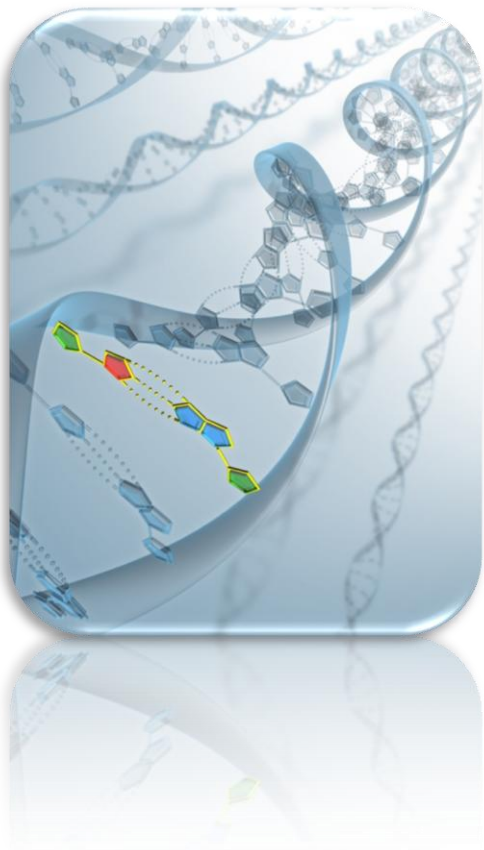
eLab can check for newer versions and automatically replace any updated files as they become available. This means you are always using the latest version of your edition of eLab.
- Conflicts

Each installation of eLab is self-contained and cannot interfere with other applications installed on your computer.
- Permissions

Through strict permission control non-administrative users are able to perform installations and updates.

eLab employs a secure, high availability data store that delivers the performance required to meet the demands of a single user or an enterprise level installation.

*A richer user
experience with
better graphics and
faster response
times*



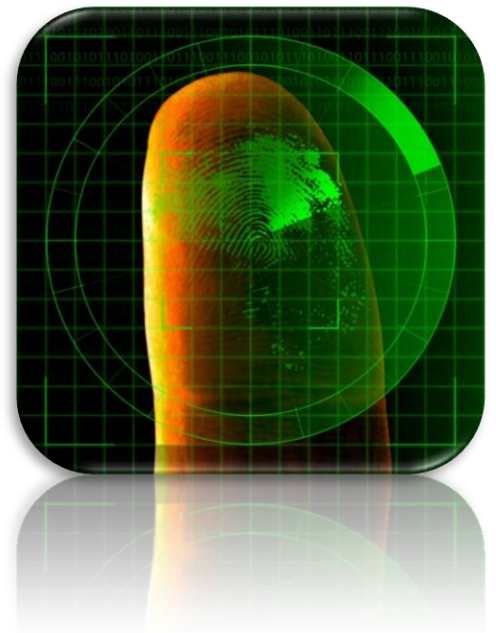
Security

Today's laboratories are increasingly exposed to internal and external security threats. In response we have undertaken considerable effort to protect your data. From early in the planning phase we concentrated on ensuring the confidentiality and integrity of data maintained by the system. Advanced code analysis and source control tools were employed during development to enforce the highest levels of code quality. The result is a product built from the ground up to be secure.

A number of features help provide high levels of security for your data:

- A multi-tiered approach to data access implementing several separate layers of security.
- Fine-grained access control determines whether data is available to individuals, teams or roles.
- The installation wizard reduces the surface area of attacks by ensuring that only the features you need are installed.
- Enforced policies for logons, passwords and timeouts.
- Hashing of sensitive data to detect attempts to manipulate records.
- Comprehensive logging allows eLab to record all attempts to view, edit and insert data.
- Lock down of data ensuring that information can only be manipulated through the user interface.
- Each eLab installation runs from a secure per-user, per-application cache making eLab inherently isolated and contained.

*Built from the
ground up to be
secure*



Compliance

A key motivation underlying the creation of eLab was a reduction in the regulatory compliance burden that is increasingly being placed on laboratories. eLab implements a numbers of features that assist labs achieve and maintain compliance:

*Achieve and
maintain
compliance*

- Comprehensive data retention mechanisms.
- Detailed logging and traceability.
- Procedural versioning.
- Document management tools.
- The ability to integrate Standard Operating Procedures into workflows.
- Timely visual identification of sample and procedural issues.

Particular attention has been given to implementing a strict interpretation of the FDA's 21 CFR Part 11 regulation whilst future-proofing installations against changes in guidelines or levels of enforcement.





eBioSys Pty Ltd
PO Box 5602
Perth WA 6831
AUSTRALIA

Tel (within Australia):	1800 520 888
Tel (international):	+61 (0) 417 929 407 +61 (0) 409 314 222
Fax:	+61 (0) 893 142 221
Email:	contactus@ebiosys.com
Web:	www.ebiosys.com

Copyright © 2007 eBioSys Pty Ltd

All rights reserved. No part of this document shall be reproduced by any means without the prior written consent of a company director. eBioSys reserves the right to deny approval of external usage for any reason.

eBioSys makes no warranties, express or implied, in this document. Nor is any liability assumed for damages resulting from the use of information contained herein.

Part No. 007-107373

www.ebiosys.com