



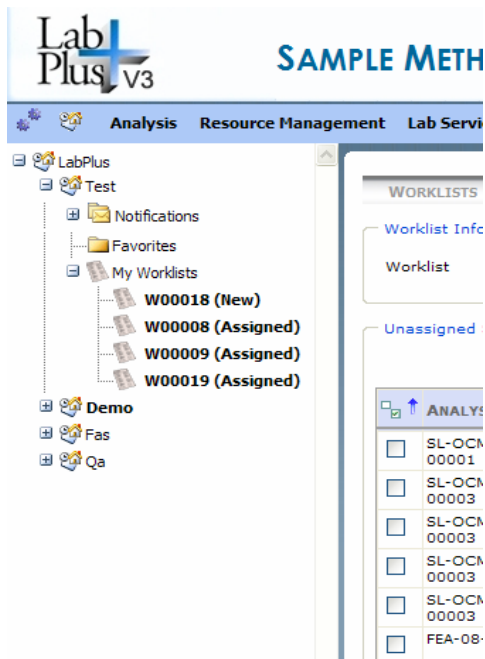
## LabPlus Functionality

In order to simplify the use of LabPlus, functionality is grouped under five functional domains.

### Domains and Functions

| Domain                              | Function  |
|-------------------------------------|---|
| Analysis                            | To perform primary lab function/lab work : receive/plan/analyze/produce reports and track samples |
| Resource Management                 | To manage lab assets  |
| Laboratory Services                 | Used by the lab to provide value to the organization, other systems and lab employees             |
| Laboratory Management               | To manage the laboratories operations and take decisions  |
| System (including User Preferences) | To configure and maintain the system.   |

### Benefits of extended functionality of LabPlus

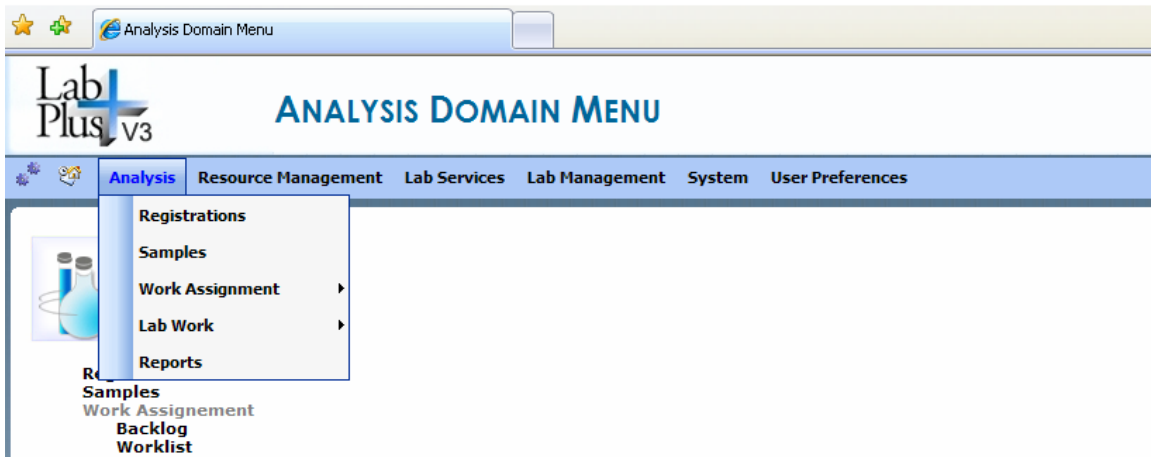


**Productivity gain:** Tree view for data accessing and data mining, processing samples, generating reports, registering samples, planning and allocating workloads and more.

**Improved data accuracy and consistency:** Calculation and data capture errors are reduced from the use of data validation, automatic data acquisition, and bar code reading equipment.

**Rapid and open access to quality information:** Quality information stored in LabPlus is accessible to multiple applications and users serving other functions in your organization.

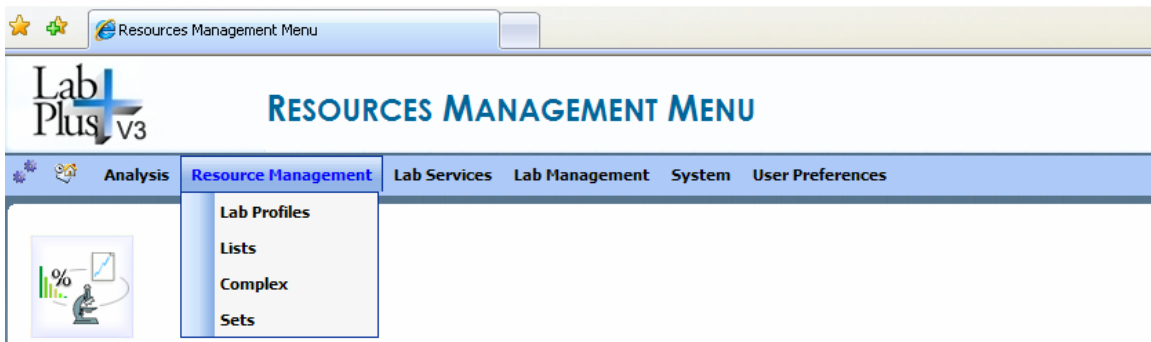
**Better utilization of resources:** Optimal laboratory workload planning, as well as, automatic detection and notification of configurable events ensure a more timely and efficient response to all your clients' needs.



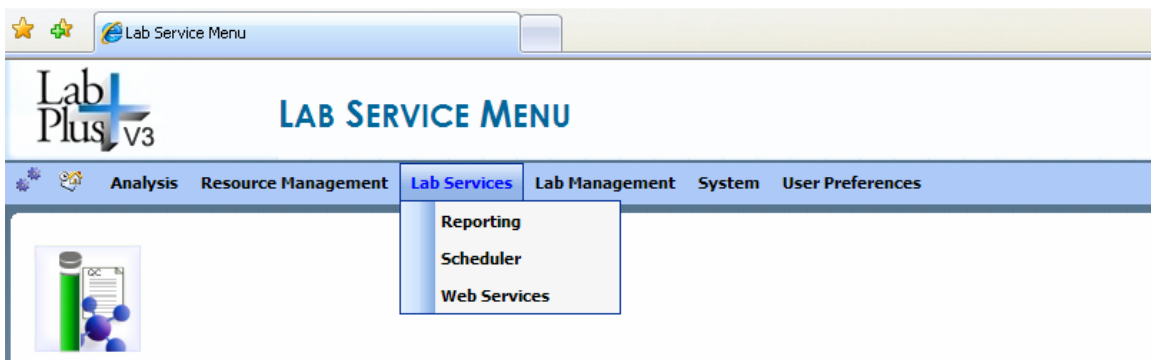
The analysis domain contains the laboratory functionality for managing the samples life cycle and laboratory work. LabPlus provides a unique sample log-in workflow that encompasses all log-in possibilities. This domain also includes:

#### Lab Work

The Lab Work functionality provides the results entry screen. The result entry screen implements the AJAX technology to provide real-time validation and feedback to the user in case of entry errors or out of specifications results.



The resources management domain contains the functionality for managing the laboratory assets such as the definition of various lists, the instruments, the products, and more.



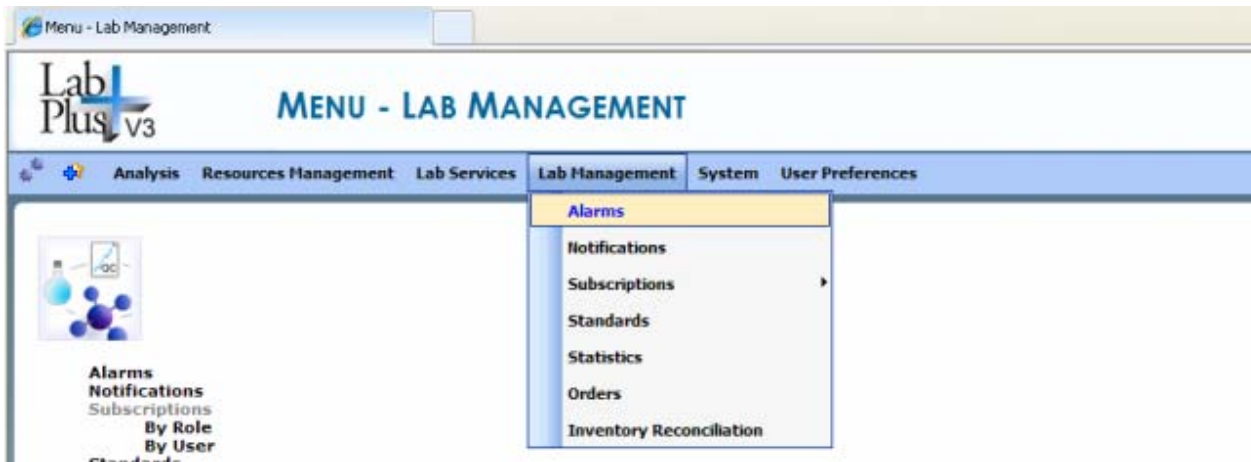
The laboratory service domain contains the functionality offered by the laboratory to automate, simplify, inform users and broadcast laboratory information. This domain also includes:

### ✚ LabPlus Web Service Interface

The LabPlus Interface has been developed as a Web Service application. It provides standard based XML interfacing to the LabPlus application that can read/write data in a transactional or non-transactional mode. Web Services combine the best aspects of component-based development and the Web. Like components, Web Services represent black-box functionality that can be reused without worrying about how the service is implemented.

### ✚ Scheduler

The Scheduler provides the ability to schedule the execution of any system workflows, as well as to initiate requests from the Notification. This provides the ability to schedule any entity and to set entity attributes.



The laboratory management domain contains the laboratory support functionality for managing the laboratory. This domain also includes:

### ✚ Notifications

With LabPlus is possible to configure notifications and subscribers to these notifications. Setting the notification screen in the “favorites” allows an easy monitoring of any changes happening within the system. Notifications can be managed in LabPlus and also be sent automatically by email.

### ✚ QA/QC

QA/QC functions are designed to provide increased capabilities and allow improved tracking and control of lab operations. All quality controls integrate similar attributes and provide enhanced capabilities such as charting, the ability to manage multilayer (category and types) of controls, automatic calculations for % recoveries, accuracy, etc.

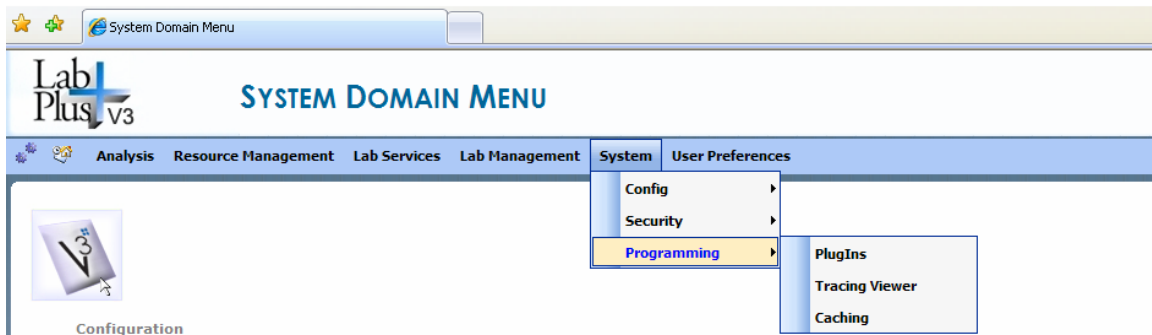
It is possible to define quality control plans by method, but in addition it is also possible to define them for worksheets. Hence, the scope for controls, such as calibrations and blanks, can be global to a method for a given period of time or be valid within the scope of a worksheet.

### ✚ Graphical Charting Object

LabPlus provides tools to maintain charts for controls and sample results.

### ✚ Orders and Inventory Reconciliation

LabPlus provides features to easily manage the laboratory supplies order as well as automatic inventory reconciliation following a physical inventory.



The system domain contains the configuration and management functionality intended for IT personnel. This domain is used to configure all lists as well as queries and report templates. Under security, users, roles and pages are defined. Programming provides tools to configure and customize the system. This domain also includes:

#### **Query**

Query templates are usable by system users in the various screens of the system to search information. When running a query template the user can, if required, modify search criteria. Search result information can be downloaded as a .csv information table into other applications such as Microsoft® Word, Excel, etc.

#### **Report**

Used to create the mapping between each Crystal Reports® report, the screen where it appears and the stored procedures used to extract the data.

#### **Condition**

Notification conditions that are defined for a resource include a PlugIn that allows validating a given condition.

#### **Format Mask**

This function allows defining any format types for an attribute. This great flexibility allows extensive possibilities to qualify attributes; all field types can be used to define a format mask.

#### **Users/Roles**

In the LAP-ACE architecture all system security is applied to roles. System, page, and functional access are granted through application roles and a given user can be a member of multiple roles. The authentication and authorization services are in the business layer. These mechanisms provide enhanced system security and greatly reduce configuration and maintenance efforts for multi-user installations.

#### **Built-In Security**

The LabPlus application has a built-in security. The application can be used as a standalone or integrated to Microsoft Active Directory.

Access to data is restricted through lab profiles, which can be used to segregate data belonging to different lab sections or remote locations; a given user can be allowed to work in one or multiple lab profiles.

It is also possible to define what information is display in screens for each role, which allows the implementation of a need-to see policy for data access.

If needed data transmission between the server and client stations can be encrypted using SSL (VeriSign Secure Site Pro, 128-Bit SSL.)

All passwords can be set-up according to any business rules such as being required to be of a specific length of characters, with or without time limit on when they should be changed.

#### **Programming: PlugIns - Workflow Modeler, Debug and Trace viewer**

Used to view, test and debug the PlugIns. The PlugIns are linked to entity events and can reference utilities, methods, objects and properties of the ACE library. The PlugIns are precompiled minimizing the potential for runtime errors in customer specific scripts.

The trace viewer is used to view the event log of the application and it lists all the errors generated by the application.

## **Additional Modules**

#### **LabPlus Application Developer Interface**

Service Interface Web Service client – Sample application developed using C#.NET that can be used to develop a custom interface to the LabPlus Web Service from within a third party application. This interface gives programmers the ability to interact directly with the LabPlus Web Services and can also be used standalone for manual XML based LabPlus web service interaction.

#### **Instrument Interface with LimsLink**

Labtronics' LimsLink enables bi-directional communication between your instruments and LabPlus. It maximizes your investment in LIMS technology by ensuring that laboratory test results are transferred in real-time from your instruments to LabPlus accurately and efficiently.

## **Future Functions/Modules**

The new LabPlus web-version will exceed most of the functional requirements of your laboratory. LabPlus Technologies is committed in improving the product in the future by offering you more advanced features. Advanced modules ensure that all your activities can be easily managed from within one system streamlining your laboratory operations.