



LabPlus Configurability

All laboratories need to have the ability to log, maintain, and access information based on their specific requirements.

LabPlus provides features enabling all types of laboratories to implement the perfect set of features they need through configurable entities, attributes, workflows, and business rules.

Data Entities

In LabPlus, any group of similar “records” is called an “entity”. In other words, an “entity” is analogous to a database table, and a “record” is the data contained in the table. Entities can be added to the system to configure the application to your specific laboratory requirements.

Generic Entities

LabPlus contains over 100 generic entities. Generic entities include what is required for laboratory management and their integration enables you to profit quickly from your investment.

Configurable Entities

It is also possible to modify generic entities or to create new ones for your specific needs. New entities can be associated with the existing ones and can interact like any other entity within the operating cycles and specified business rules.

This characteristic of LabPlus offers a flexibility which, up until now, was only available in customized LIMS applications.

Satellite Entities and Functions

Satellite entities and functions are available for all entities. The satellite entities provide the implementation of advanced pre-designed functionality to an entity:

History, Audit, and Notification for traceability of actions and modifications of entity; notification can be used to further define actions to be taken when a change occurs.

Comment and Attachment to store more information about an entity; more than one comment can be created thus a discussion can be preserved.

Hierarchy and Set to group several records of the same entity or of several individual elements under a common denominator.

Caching can be required to improve the system performance by preserving records in a cache memory which avoids frequent requests to the database.

Configurable Attributes

Each entity is made of attributes that are used to store data for a record. Different types of attributes can be used to define the data of entities:

Number: Double, Integer

Text: List of Values, String, Text , XML (BLOB)

Reference: Reference to any current entity defined in the system

Data Set: Set (group of values)

Other: Boolean, Date, Time, and Date-Time

Workflows

LabPlus offers the ability to configure your operating cycles or workflows. By using the combination of the configurable LabPlus PlugIns technology, the configuration file, the state machine, the notification, and the scheduler, it is possible to predefine any operational sequences.

Generic Workflows

LabPlus offers generic workflows. They include, amongst other workflows for product analysis and specifications validation, validations of calculations and results and more.

Specific-Configurable Workflows

In addition to generic workflows, it is possible to create new workflows or to modify existing ones in order to meet your specific operational needs.

Business Rules

System Business Rules

LabPlus has system defined business rules already built in, which are used to implement amongst other things system integrity, auditing, security record addition.

Configurable Business Rules

LabPlus offers tools to modify or create new business rules. The LabPlus PlugIns technology allows the creation of business rules scripts, programmed in VB.NET, C#.NET or Java that provide a means to alter the system behavior and to implement specific business rules. The "PlugIns technology" allows pre-compiling and provides a debugger and a tracing utility.

The screenshot shows the LabPlus v3 web interface. The browser title is 'Query Details [SM_BACKLOG-BYPRODUCTANDLOT]'. The page header includes the LabPlus logo and the title 'QUERY DETAILS [SM_BACKLOG-BYPRODUCTANDLOT]'. A navigation menu contains 'Analysis', 'Resource Management', 'Lab Services', 'Lab Management', 'System', and 'User Preferences'. The main content area is divided into three sections: 'General Information', 'Page Detail', and 'Query Detail'. 'General Information' includes fields for Name (SM_BACKLOG-BYPRODUCTANDLOT), Caption (BY PRODUCT AND LOT), Visibility (Enabled), and Serial (80). 'Page Detail' shows Target Page (Backlog) and Global Query (unchecked). 'Query Detail' contains a table of query conditions:

Field	Operator	Value
Sample.Product	=	Default
Sample.Lot	~	%0%
Date Created	>=	Expression \$adddays(\$now(), -30)

Benefits of extended configurability of LabPlus

Flexibility: Laboratories can use its terminology, entities, workflows and business rules.

Versatility: Ease of incorporating new screens, reports and queries templates, and custom pull-down menus.

Simplicity: Ease of configuring the system to fit specific needs; sample searches using unique queries, data entry in various screen types and use of barcode technology.