

Matrix Plus Version 4

Features List

*indicates item particularly relevant to highly regulated laboratories

General

ODBC (Open Database Connectivity) provides users with choice of databases such as Oracle, SQL Server, SQL Anywhere, DB2, etc.

Choice of server and operating system.

Web enabled.

Enterprise version of Matrix allows multiple sites to use central server, irrespective of distance, with performance similar, or better than, conventional client-server LAN based system (upgrade - see separate leaflet).

User workstations can run Windows 95, 98, NT, 2000 and/or XP.

Concurrent use of multiple database groups.

Multi lingual for international applications.

Fully scaleable for small or large organisations.

Fast implementation.

Configurable by the non-programmer.

Easy integration with third party applications.

Network Administrator

Features include: work station identification; enable and disable specific work stations; limit users to specific workstations; control multiple users at the same work station; display details of all the current users; send notification to users; remote termination of users; control system usage and automatic program timeout when inactive

Full event logging

Features include: records all activity on the system; event time and date; date type; database in which event occurred; workstation used; user code; function associated with event and event description.

* System validation services available.

* Autoscribe has ISO 9001/2 accreditation.

Registration

Ability to operate many different sample registration screens to fit work patterns e.g. different screens for finished products and raw materials. Automatic filtering displays only the appropriate records - Suppliers in the raw material screen and Customers in the finished product screen. Also when a supplier of raw materials is specified, for example, the picklist of products can be limited to those provided by the supplier.

Each registration screen can have a unique sample numbering system or can share a numbering system with other screens.

Pre-registration screen allows identification of substance, for example, which then opens appropriate sample registration screen. Useful for plant operators or inexperienced personnel.

Single sample with copy facility

Batch registration

Allows grouping of samples; allocation of unique sequential batch number in addition to individual sample number; creation of new batches; addition of samples to existing batches; monitoring of status by batch and sample selection by batch information and free test notes stored for the batch

Batch registration with copy facility

Sample scheduling

Data may be picked from pre-defined lists

* Fields may have "masking" applied to ensure correct format of data is entered.

Support for date formats and calculations for best before dates, report dates etc.

Ability to automatically generate a selected report **and** label simultaneously.

Full bar-code support.

Easy on screen configuration to get the "best fit" for a particular user. Individual users may have their own registration screen.

Easy access to static data for submitters and substances and any other tables that may be required.

Ability to view all details about a submitter or substance.

* Data may be added to static tables "on the fly" (with full audit trailing) by users who have the relevant authority without having to leave the registration screen.

Ability to have different access to the static tables based on the user who is logged in - a supervisor may have the ability to add static records to the submitter and substance tables whilst a technician may be restricted to selections from an existing list.

Ability to modify the test list assigned to a substance.

Automatic allocation of tests and/or test suites based on product type specified or combinations of product/customer, for example.

Ability to assign limits to test components associated with a sample in addition to test and substance based limits with full auditing.

* Ability to add tests "on the fly" with the given authority with full audit trailing.

* Ability to view all details about a test including historical versions of the test.

Ability to view test methods from the registration screen.

* Ability to enter variable length notes associated with a sample with date and user i.d. stamping.

Ability to add standard text or templates stored in external files.

Ability to add standard phrases to buttons on the notes dialogue.

Ability to lock access to previous notes.

Easy configuration using unique screen builder and option definition tools.

Control over the number, position and type of fields displayed on the registration screen.

Control of the data to be entered into a field.

Support for text, numeric, date, logical and notes fields. In addition, combo boxes may be defined for certain data.

Full control over the definition of buttons including definition of the function the button activates.

3-Tier sample registration which supports large/multi-site LIMS implementations - the registration function is activated at the application server.

Sample Receipt

Sample receipt provides the means to confirm arrival of pre-registered samples. The sample receipt screen can be configured to allow entry of any supporting data.

Support for Single Sample, Batch Sample or Global Sample receipt.

Ability to apply a filter to display only the requested samples.

Easy multi selection of samples to be received by clicking on entries in a pick list.

Sample Preparation

Sample Preparation provides the means to confirm that samples, where necessary, are prepared and ready for testing, e.g. where solvent extraction is required. This feature ensures that worklists only contain samples genuinely ready for testing.

Support for Single Sample, Batch Sample or Global Sample preparation.

Ability to apply a filter to display only the requested samples.

Easy multi selection of samples prepared by clicking on entries in a pick list.

Work Allocation

Work Allocation allows the assignment of samples and tests to resources (e.g. people) so that work load may be tracked.

Ability to apply a filter to display only the requested samples or tests.

Easy multi selection of samples prepared by clicking on entries in a pick list.

Chain of custody audit trail - track of time, date and 'owner' of sample.

Runsheets

Provides for creation of worksheet templates for each analytical method used. When a working runsheet is created it may be down loaded to an instrument as a sequence file.

Each runsheet has its own unique identity.

Provides for insertion of blanks, wash samples, standards, spikes, QA samples, control samples and allows calculations between samples in a runsheet.

Result Entry

Result entry by sample - allows selection of a single sample for entry of results for any test associated with the sample.

Result entry by batch - allows selection of all samples, for a given batch record, for result entry.

Result entry by test - ability to select all samples for a given test for result entry.

* Multi-sample, multi-test result entry (spreadsheet style). All entries individually tracked if necessary. Non-applicable tests automatically greyed out.

Result import from a variety of sources including files (both raw data and text files) and instruments.

* Automatic or manual validation and approval of results with a date, time and operator id. Includes automatic limit checking and calculations.

Ability to view results previously entered using same selection criteria as for selection of samples for result entry.

Ability to view only tests with results pending.

Ability to view test and sample status.

* Ability to initiate re-test from result entry screen. Entry of a reason can be forced.

Use of colour on the test matrix.

Results out of specification displayed in user definable colour scheme.

Comprehensive function list available for automatic calculations including use of IF statements.

Support for cross-test calculations.

Support for a wide variety of result types - static text, numeric, calculations, short text, long text, menu, date/time, cross test and sample field (contents of a field from sample registration screen).

Each test can include any or all of the above result types.

* Result entry is tracked (user id, date and time) at component/result level. For a test that involves different dates and operators this feature is vital. Example - loss of weight on drying.

* Results may be authenticated by confirmation of user password as Save button is activated, for example. Results can be at component, test or multi-sample, multi-test level.

* Each result cell has audit trailed history. Any changes are recorded. Once validated changes cannot be made.

Result Limits

Limits may be applied to products e.g. specifications, tests e.g. detection range and samples e.g. ad-hoc investigations.

Multiple limit windows may be specified for products, tests and/or samples.

Actions, if an entered result falls outside of a limit window, include rejection of value, failure, warning etc.

A feature known as "apply limits" is useful for low level detection. For example, if the low limit is set at 5ppm and a result of 3ppm is entered by a user, the system automatically converts the entered value to <5ppm.

Rule based limits allow the limits to be adjusted according to rules appropriate to the sample e.g. if the patient is male and under 30, we limit X.

Sample Status

User definable Batch, Sample and Test status screens.

Support for split screen display (in preference to horizontal scrolling)

Many functions available from status screens.

Sample Validation And Approval

Automatic validation supported.

* Sample validation can be prevented until all tests completed.

* Multi level sample approval supported including user defined approval status levels.

Easy re-sampling at approval.

Reporting

Supports any reporting tool that is ODBC compliant.

Reporting down to test component level.

Ability to output to Lotus Notes, E-Mail (VIM and MAPI) etc. via Crystal Reports Professional, the recommended report generator.

Full interaction with Crystal from Matrix Plus.

Event Triggered Reporting - ability to schedule functions such as the issuing of a report or running an external programme based on an event e.g. sample status change (option).

Report numbering

Supports any reporting tool that is ODBC compliant.

Maintenance

Static tables for security, submitters, tests, substances, instruments, resources, users and workstations.

* Full version control on all static tables.

* Full auditing on all static tables.

User definable screens for all static tables.

Ability to use filters on all static tables.

Ability to list multiple "views" of a static table on the maintenance menu, e.g. raw materials or finished products.

Ability to upload suitably formatted tables for automatic population of the static tables.

* Multi-level security including automatic logout.

Security control via menu definition, screen access, field and/or button access.

Failed log-in attempts are recorded.

* All new, or edited, table entries need to be approved for use.

*Textual specifications may be stored for reporting at sample, substance and test levels.

Sample Archival

Supports archive and de-archive.

Archives in native format.

Archive available while users are active on the system.

Automatic timed archival.

Ability to pause archive process.

Tools

Matrix Plus offers a variety of tools for system configuration that require **NO** programming expertise.

Screen Builder

Unique screen based Screen Builder now with 'screen wizard'.

Ability to define an infinite number of screens within the system.

Drag and Drop screen configuration.

Screen configuration allows the use of a variety of different controls including Bit Map Images, Check Boxes, Combo Boxes, Edit Boxes, Extended List Boxes, Formatted Character Fields, Formatted Date Fields, Frames, Group Boxes, Icons, List Boxes, Message Boxes, Push Buttons, Radio Buttons and Text Boxes.

Use of "snap to grid" to aid placement of objects on the screen.

Dynamic sizing of objects using drag techniques.

Ability to specify tabbing order.

Ability to define "jumps"

Simple method of specifying control identity.

Ability to define multiple screens for carrying out the same or similar tasks i.e. multiple registration screens.

Ability to design user defined dialogues using buttons, bitmaps and icons.

Revision history of all screen definitions can be stored.

Screen capture and audit.

Menu Builder

Unique screen based menu builder.

Multi level menu support.

Ability to copy menus from database to database.

Ability to define different menus for different users.

Options Editor

Options editor allows definition of all system options e.g. sample numbering schemes, automatic sample receipt and many others (see Options technical bulletin).

Simple filter controls.

Plain "English" used throughout system configuration - no technical terms!.

Ability to copy options from database to database.

List Builder

List builder allows easy configuration of combo boxes.

Translation Editor

Ability to define all system terminology.

Ability to "internationalise" system.

Ability to operate multi lingual screens on the same system.

Simple "A = B" type user interface.

Others

SQL button available for screens - button activates SQL statement.

- Authentication (see Results Entry) can be applied to any function and any button on any screen apart from the Cancel function.

Supports in-screen calculations e.g. takes inputs from one or more specified screen fields, uses built-in operators to calculate results and writes outputs to one or more specified screen fields.

Miscellaneous

Selected fields for multiple samples may be updated with one command, ie global sample edit.

Support for storage of BLOB's (Binary Large Objects) e.g. chromatograms, pictures.

Options - see separate leaflets

Stability Study Management

Customer Complaint Management

Process Step Management

Scheduler