LIMS Configuration – the essential ingredient for successful implementations

John Boother
john.boother@autoscribe.co.uk

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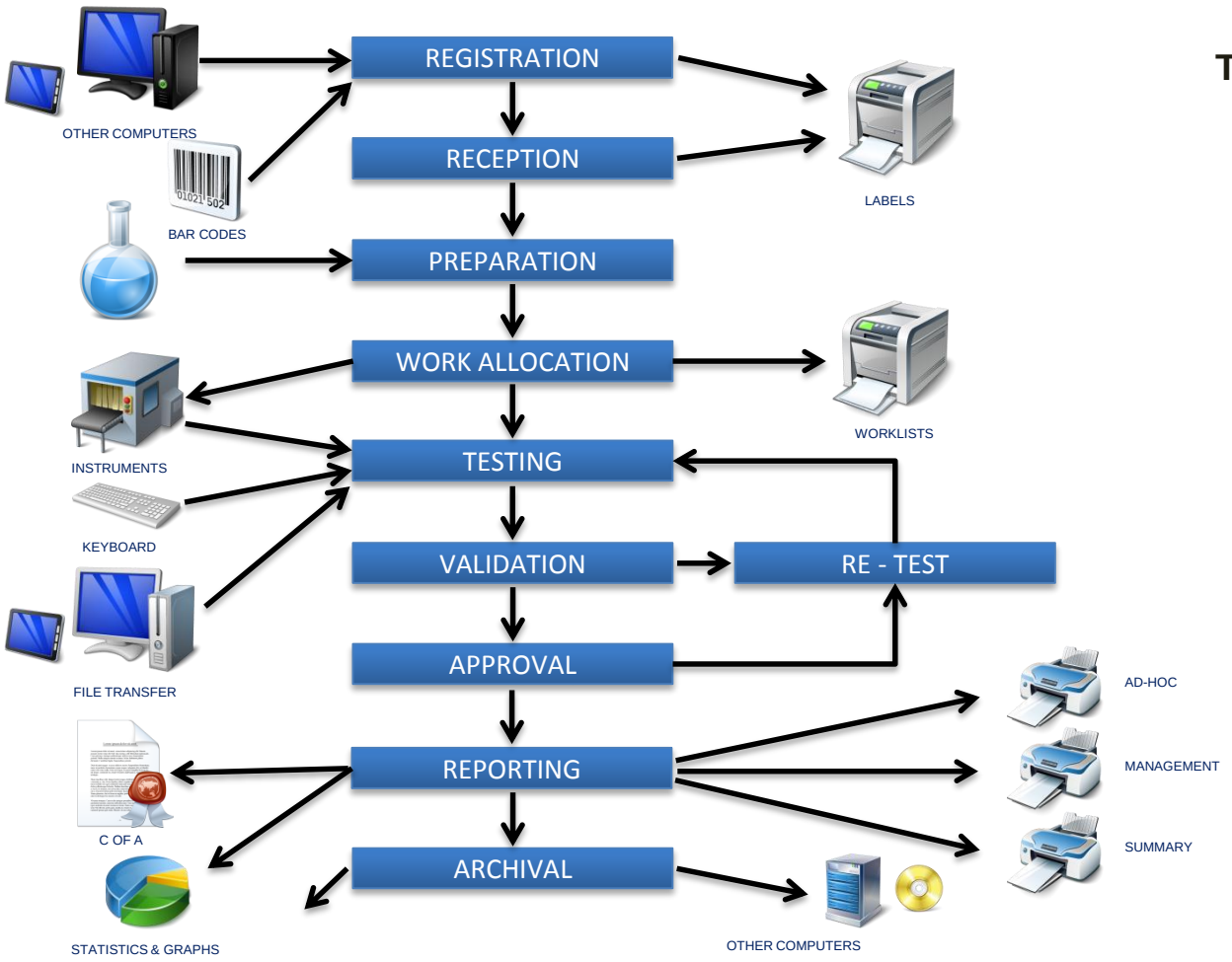
Introduction

The needs of every laboratory are different – therefore ease of LIMS configuration is key to the successful implementation and on-going usability of any LIMS solution.

I will cover:

- Why configuration is needed
- How configuration can affect validation
- The different approaches to configuration
- How Autoscribe configures LIMS solutions
- Why the Autoscribe approach is different

Typical Laboratory Workflow



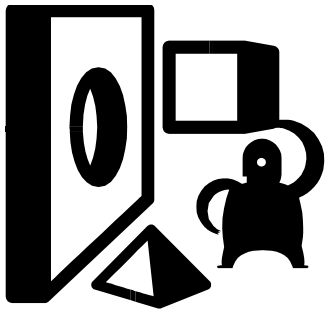
TYPICAL WORKFLOW EXAMPLE

- ❑ REGISTRATION
- ❑ RECEPTION
- ❑ PREPARATION
- ❑ WORK ALLOCATION
- ❑ TESTING
- ❑ VALIDATION
- ❑ APPROVAL
- ❑ REPORTING
- ❑ ARCHIVAL

Procedures and LIMS

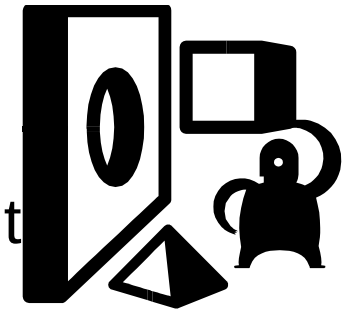
There are two choices:

- Change your procedures to fit the LIMS or
- Change the LIMS to fit your procedures



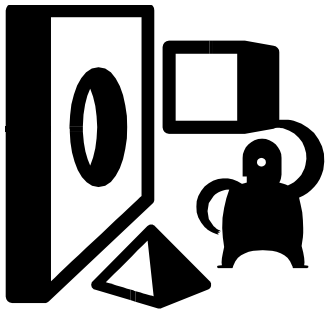
Why is Configuration Needed?

- Genuine configurability means that a LIMS can be designed quickly to represent user requirements in terms of:
    - workflows
    - screen designs
    - menu designs
    - terminology
    - numbering schemes
    - report designs
    - and much more.
- The system is designed to fit user requirement



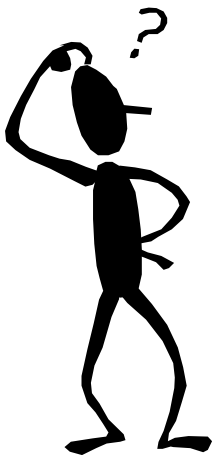
Why is Configuration Needed (continued)?

- User requirements change over time so an ideal system allows for easy changes to be made to accommodate new needs
- This can be termed future-proofing
- This leads to longer system life, lower cost of ownership and excellent return on investment



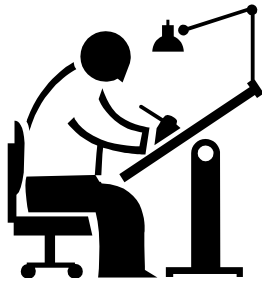
But all LIMS claim to be configurable!

- In a broad sense this is true but there are significant differences in the approaches used – and this has a major impact.



Different Approaches to Configuration

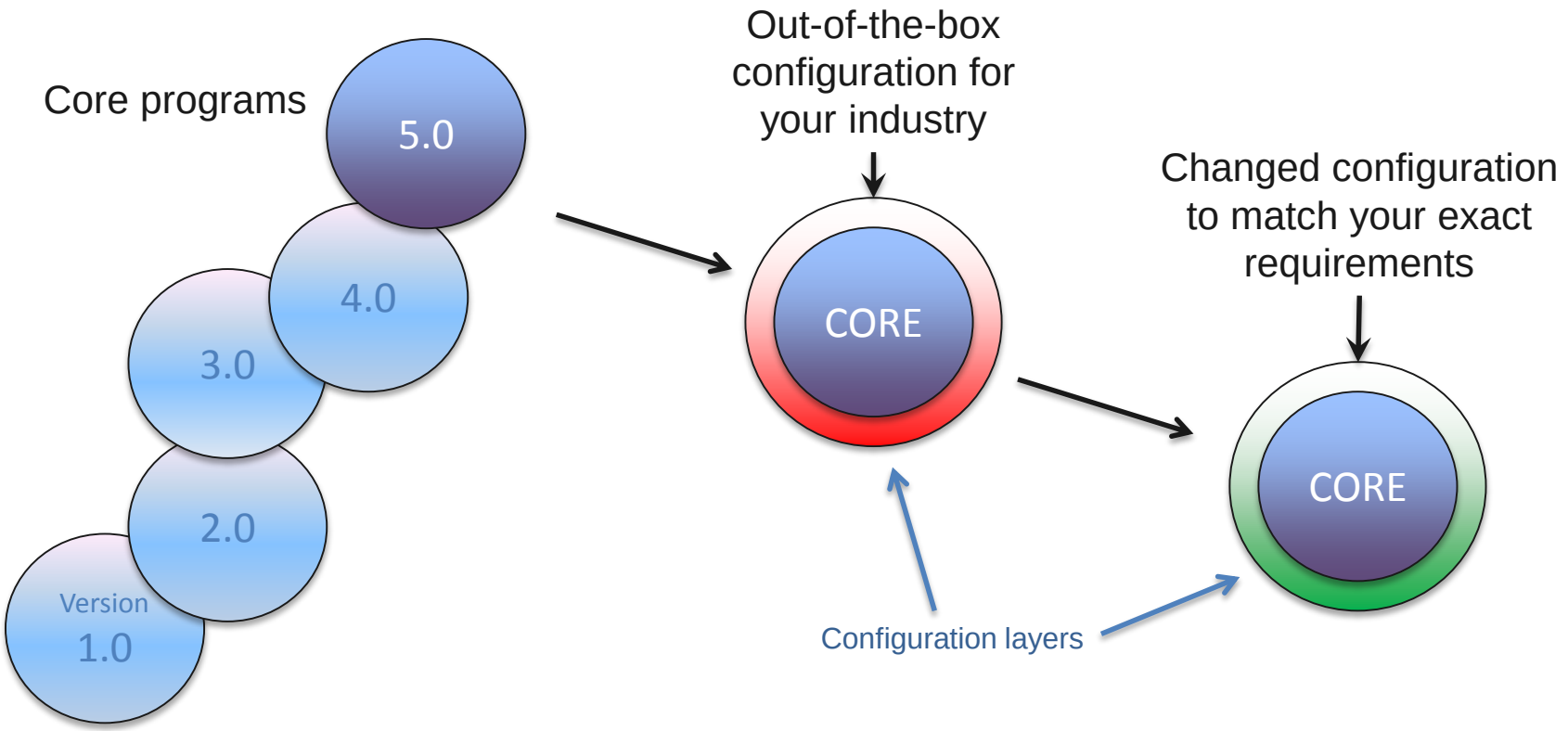
- Fixed screens (no configuration)
  - Must adopt workflow, naming conventions etc. of the LIMS as supplied
- Configuration Switches
  - Turn on/off some of the screen options to semi-configure the LIMS
- Configuration Coding
  - Change any screen, but code changes need to be re-validated
- Autoscribe Configuration Tools
  - Core code identical (avoids system re-validation)
  - Interactive user interface
    - Visual drag and drop, point and click to add fields, list boxes etc.



Autoscribe Configuration Tools

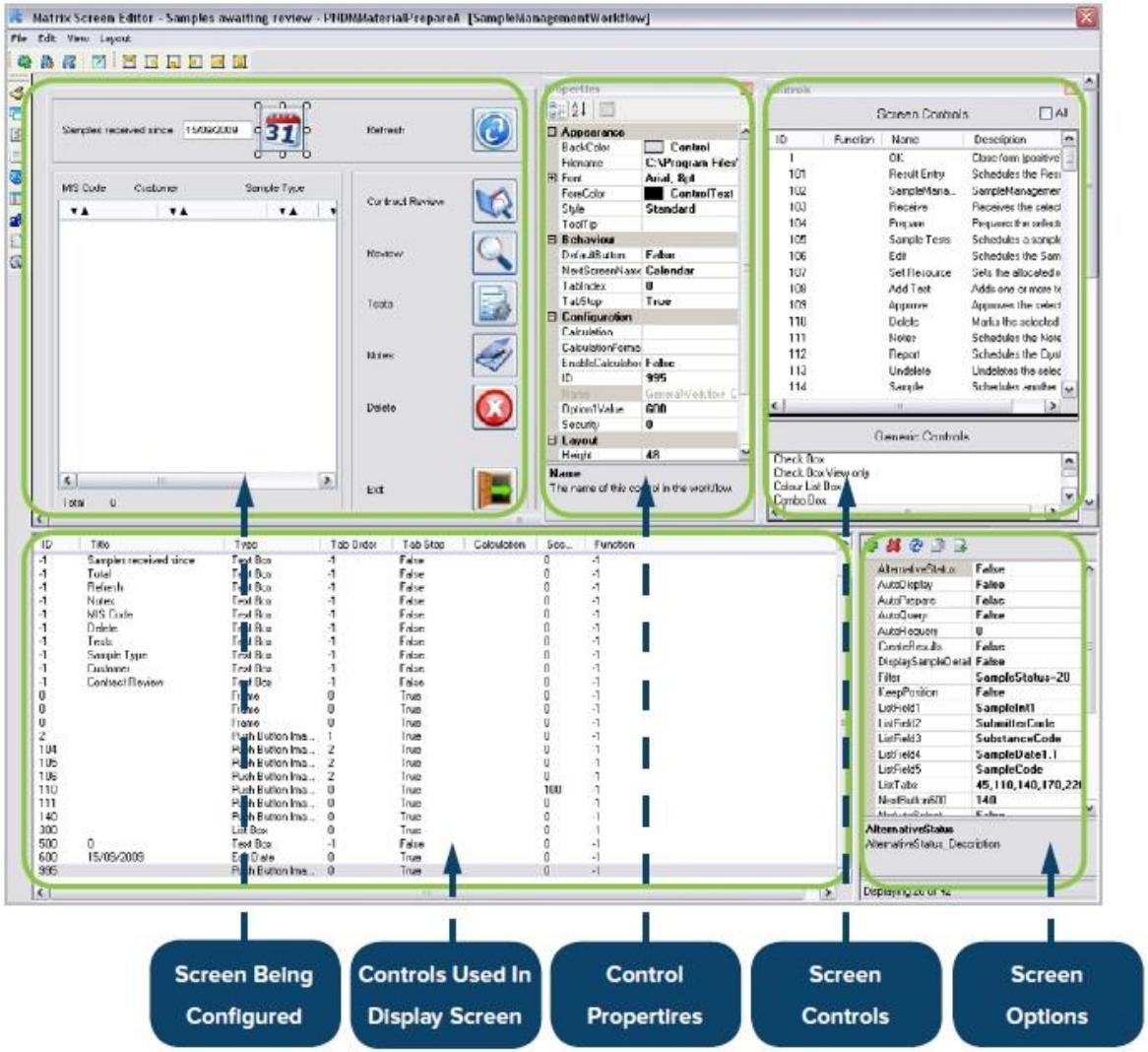
- Include:
  - Dynamic screen designer
  - Menu, list, counter editors
  - Event triggers
- No custom code written
- Faster to implement
  - Shorter time between iterations
- Easier to use - “Your way” not “Our way”.
  - Common user experience – network/web
- Provides a longer useful life
  - Customers have migrated through five generations of Matrix over 20 years!

Matrix Configuration



Every Matrix LIMS installation uses the same core program suite. However, the configurable "layer" allows each system to look, and behave differently to meet end-user requirements. ***Updates do not overwrite the configurable layer****.*

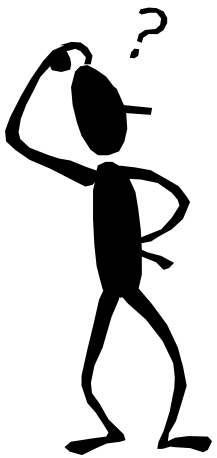
Typical Configuration Screen



How Does Configuration Affect Validation?

- Genuine configuration means the core code is untouched when delivering a LIMS and no supplementary code is used.

- Genuine configurability classes a system under GAMP Category 4 standards for Configurable Software Packages which allows for an easier and less time consuming validation.

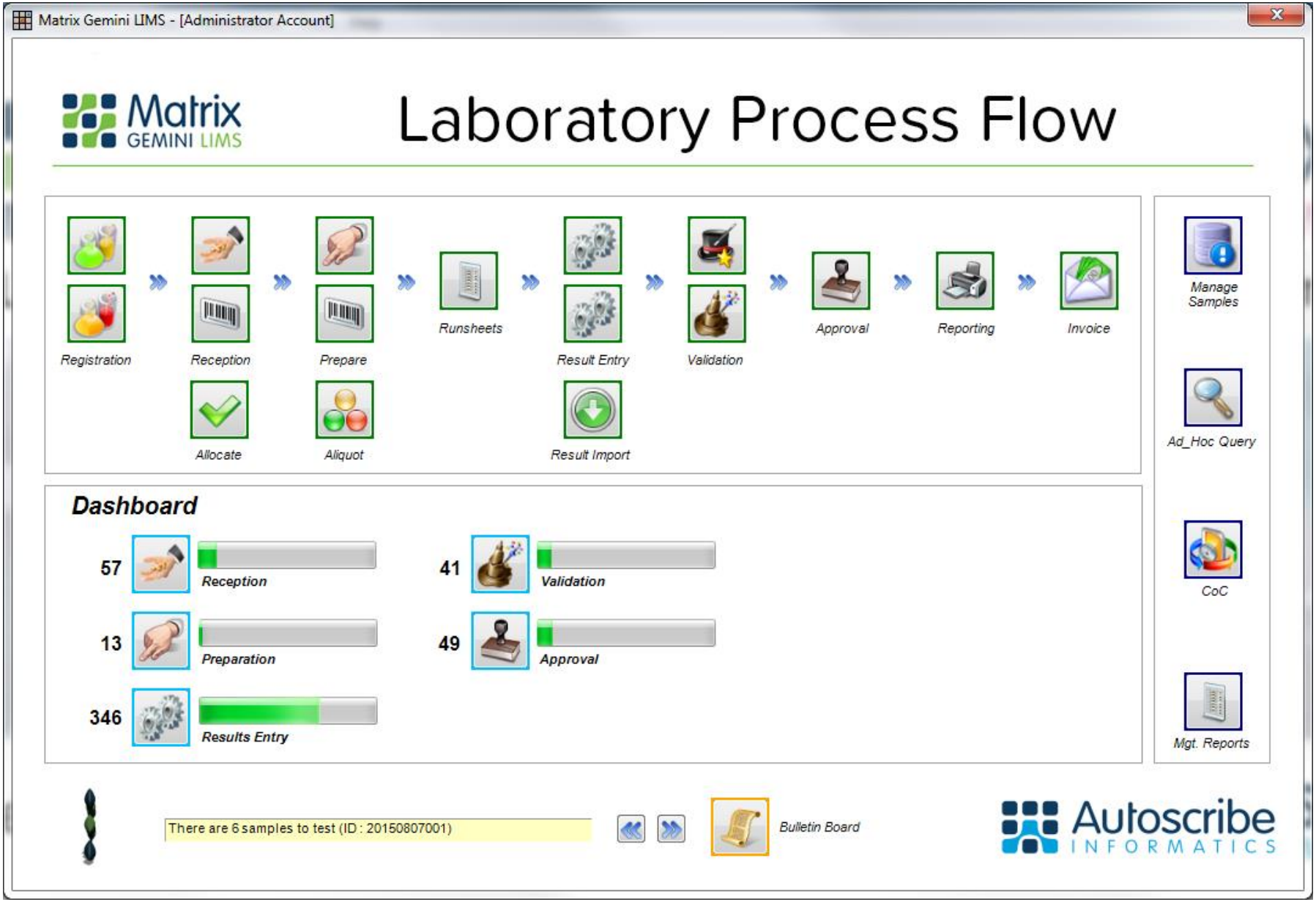


Configuration Tools for Users

- Minor modifications
- Completely new workflows
- Configure your own LIMS
- Support

Genuine Configuration and Corporate Projects

- Multiple sites and/or departments
- Different requirements
- Different sizes of local laboratories
- Different languages on screen


Matrix Gemini LIMS - [Administrator Account]
Matrix GEMINI LIMS
Laboratory Process Flow
Registration
Reception
Allocate
Prepare
Aliquot
Runsheets
Result Entry
Result Import
Validation
Approval
Reporting
Invoice
Manage Samples
Ad_Hoc Query
CoC
Mgt. Reports
Dashboard
57
Reception
13
Preparation
346
Results Entry
41
Validation
49
Approval
There are 6 samples to test (ID : 20150807001)
Bulletin Board
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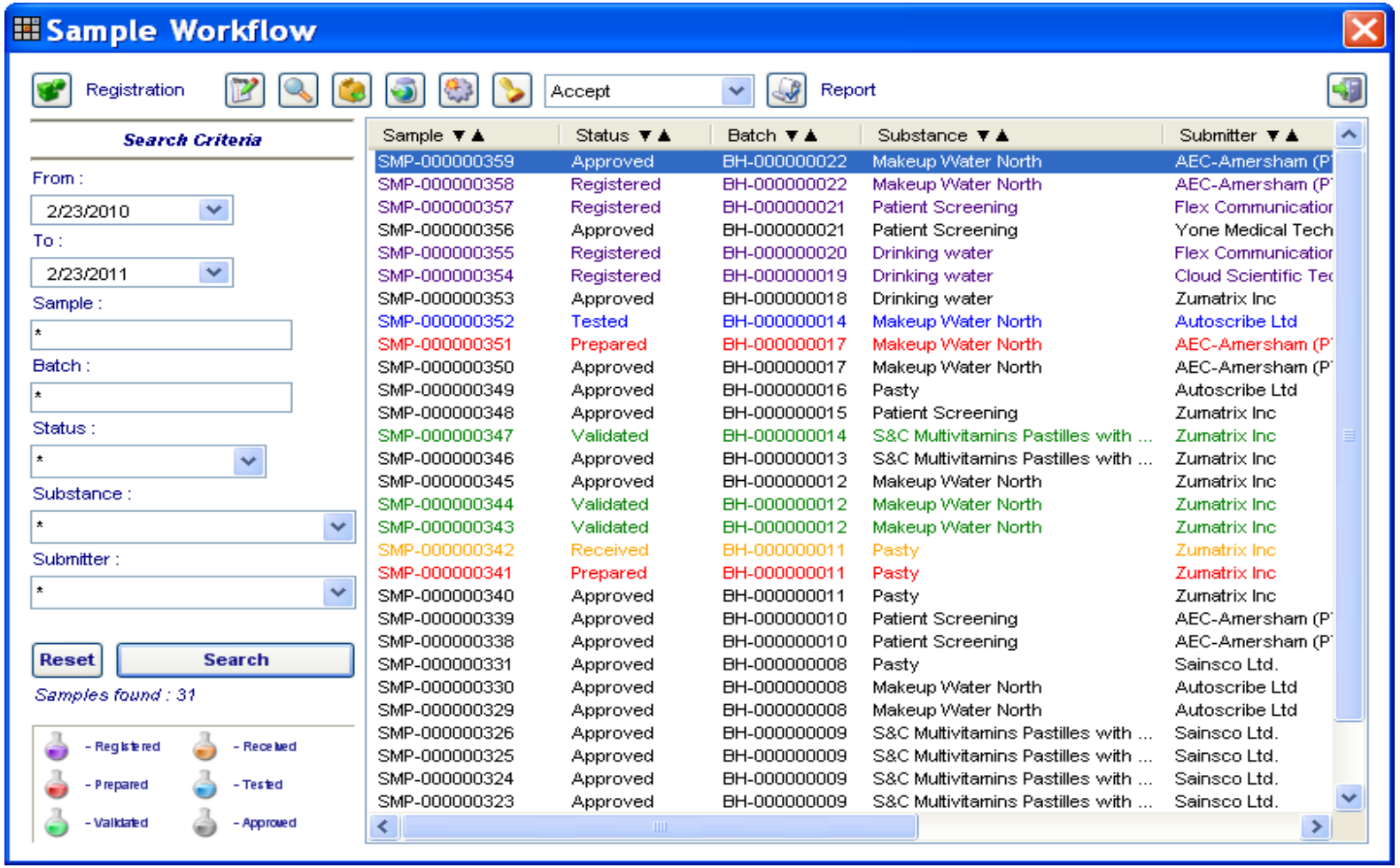
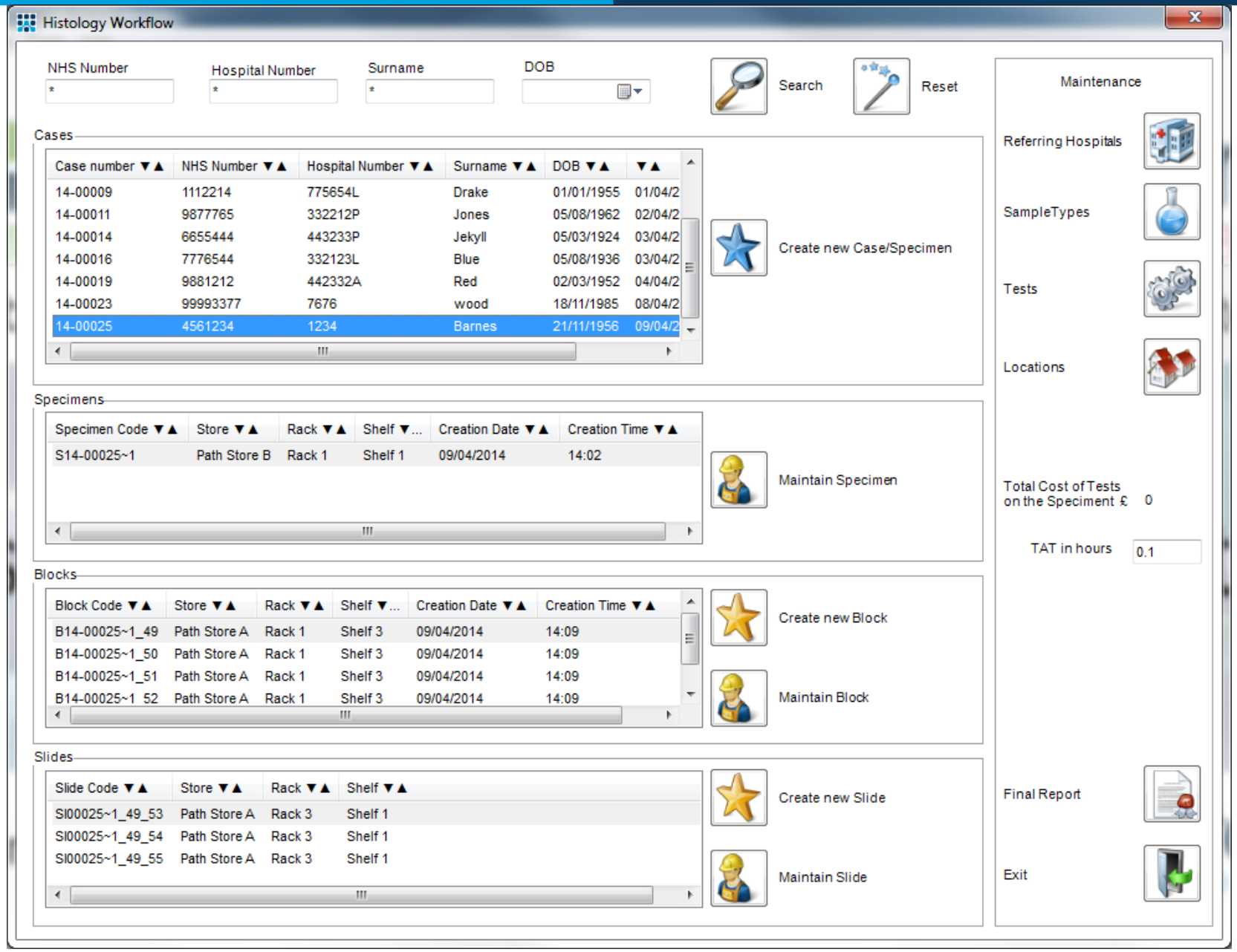
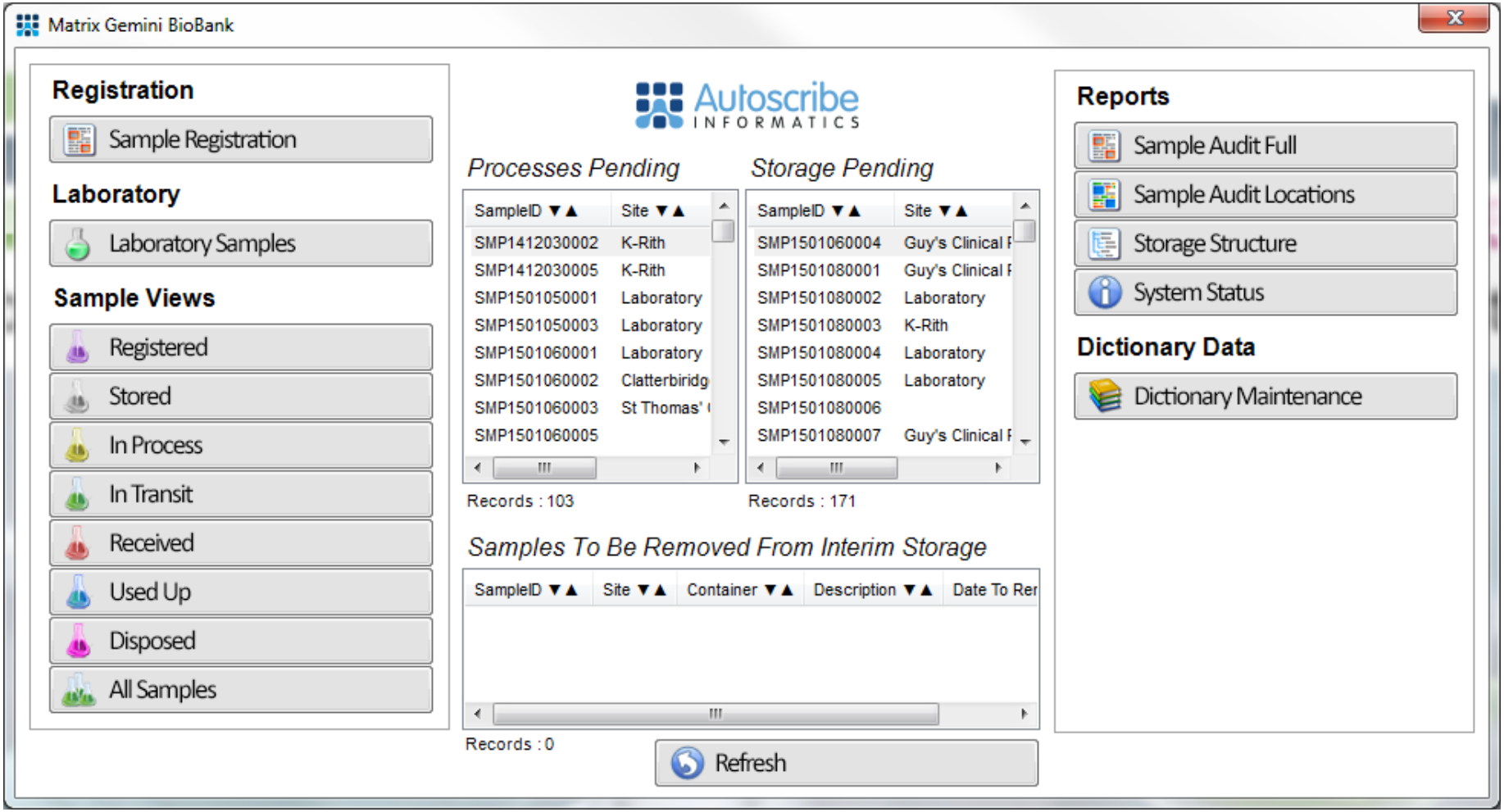
“One-Stop” Status & Workflow Screen



Matrix GEMINI LIMS

Autoscribe INFORMATICS


Histology Workflow
NHS Number
*
Hospital Number
*
Surname
*
DOB
Search
Reset
Maintenance
Cases
Case number ▼▲ | NHS Number ▼▲ | Hospital Number ▼▲ | Surname ▼▲ | DOB ▼▲ | ▼▲
14-00009 | 1112214 | 775654L | Drake | 01/01/1955 | 01/04/2
14-00011 | 9877765 | 332212P | Jones | 05/08/1962 | 02/04/2
14-00014 | 6655444 | 443233P | Jekyll | 05/03/1924 | 03/04/2
14-00016 | 7776544 | 332123L | Blue | 05/08/1936 | 03/04/2
14-00019 | 9881212 | 442332A | Red | 02/03/1952 | 04/04/2
14-00023 | 99993377 | 7676 | wood | 18/11/1985 | 08/04/2
14-00025 | 4561234 | 1234 | Barnes | 21/11/1956 | 09/04/2
Create new Case/Specimen
Referring Hospitals
SampleTypes
Tests
Locations
Specimens
Specimen Code ▼▲ | Store ▼▲ | Rack ▼▲ | Shelf ▼... | Creation Date ▼▲ | Creation Time ▼▲
S14-00025~1 | Path Store B | Rack 1 | Shelf 1 | 09/04/2014 | 14:02
Maintain Specimen
Total Cost of Tests on the Speciment £ 0
TAT in hours 0.1
Blocks
Block Code ▼▲ | Store ▼▲ | Rack ▼▲ | Shelf ▼... | Creation Date ▼▲ | Creation Time ▼▲
B14-00025~1_49 | Path Store A | Rack 1 | Shelf 3 | 09/04/2014 | 14:09
B14-00025~1_50 | Path Store A | Rack 1 | Shelf 3 | 09/04/2014 | 14:09
B14-00025~1_51 | Path Store A | Rack 1 | Shelf 3 | 09/04/2014 | 14:09
B14-00025~1_52 | Path Store A | Rack 1 | Shelf 3 | 09/04/2014 | 14:09
Create new Block
Maintain Block
Slides
Slide Code ▼▲ | Store ▼▲ | Rack ▼▲ | Shelf ▼▲
SI00025~1_49_53 | Path Store A | Rack 3 | Shelf 1
SI00025~1_49_54 | Path Store A | Rack 3 | Shelf 1
SI00025~1_49_55 | Path Store A | Rack 3 | Shelf 1
Create new Slide
Maintain Slide
Final Report
Exit


Matrix Gemini BioBank
Registration
Sample Registration
Laboratory
Laboratory Samples
Sample Views
Registered
Stored
In Process
In Transit
Received
Used Up
Disposed
All Samples
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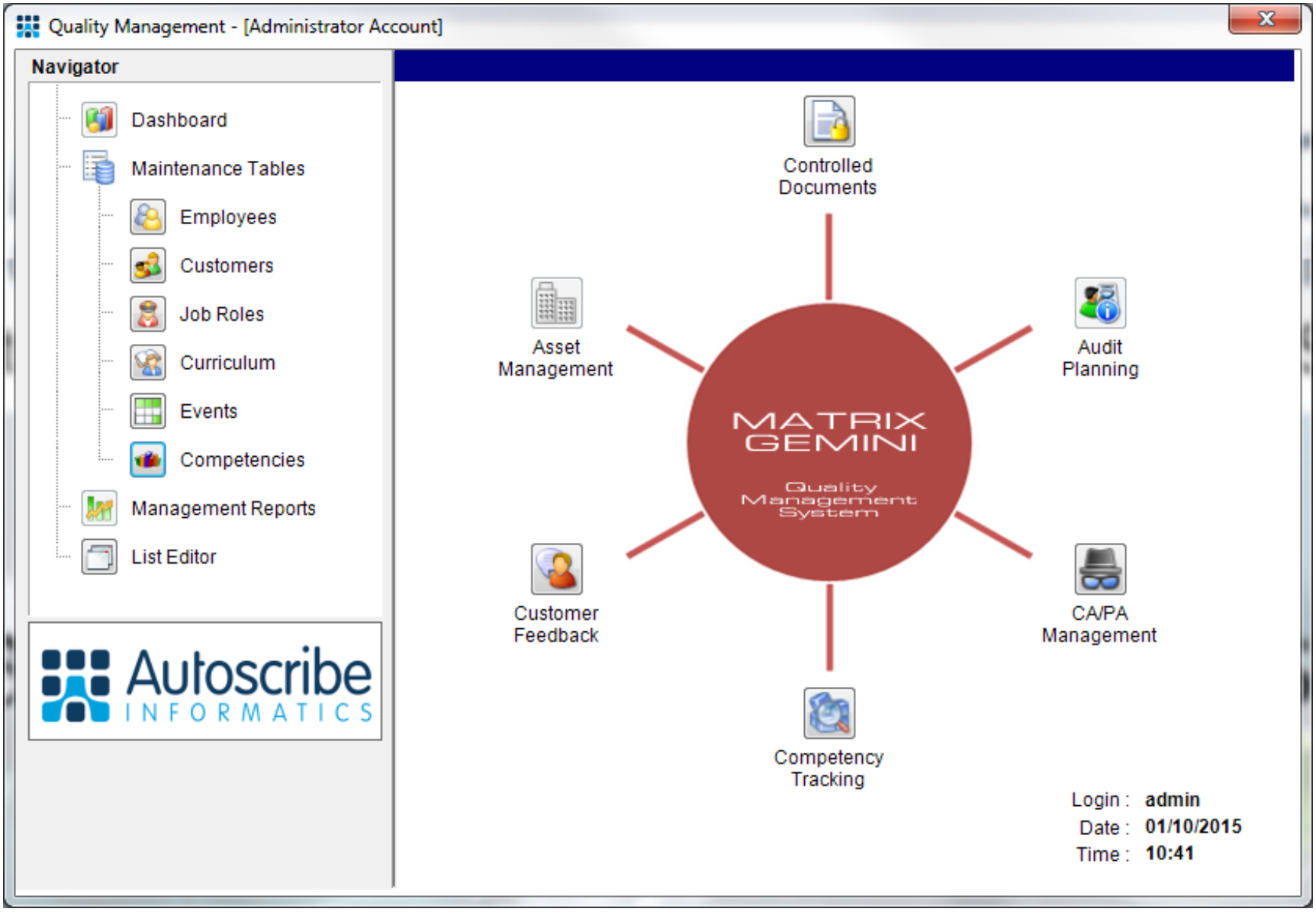
Processes Pending
SampleID ▼▲ Site ▼▲
SMP1412030002 K-Rith
SMP1412030005 K-Rith
SMP1501050001 Laboratory
SMP1501050003 Laboratory
SMP1501060001 Laboratory
SMP1501060002 Clatterbridg
SMP1501060003 St Thomas'
SMP1501060005
Records : 103
Storage Pending
SampleID ▼▲ Site ▼▲
SMP1501060004 Guy's Clinical
SMP1501080001 Guy's Clinical
SMP1501080002 Laboratory
SMP1501080003 K-Rith
SMP1501080004 Laboratory
SMP1501080005 Laboratory
SMP1501080006
SMP1501080007 Guy's Clinical
Records : 171
Samples To Be Removed From Interim Storage
SampleID ▼▲ Site ▼▲ Container ▼▲ Description ▼▲ Date To Rer
Records : 0
Refresh
Reports
Sample Audit Full
Sample Audit Locations
Storage Structure
System Status
Dictionary Data
Dictionary Maintenance


Quality Management - [Administrator Account]
Navigator
Dashboard
Maintenance Tables
Employees
Customers
Job Roles
Curriculum
Events
Competencies
Management Reports
List Editor
Autoscribe INFORMATICS
Controlled Documents
Asset Management
Audit Planning
MATRIX GEMINI
Quality Management System
Customer Feedback
CA/PA Management
Competency Tracking
Login : admin
Date : 01/10/2015
Time : 10:41

Matrix GEMINI LIMS

Matrix GEMINI BIMS

Laboratory and Business Information Management Systems

Lottery System

Delivering Configurable Future-Proof Solutions

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Any Questions?