



# LIMS Configuration – the essential ingredient for successful implementations

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18 November 2015

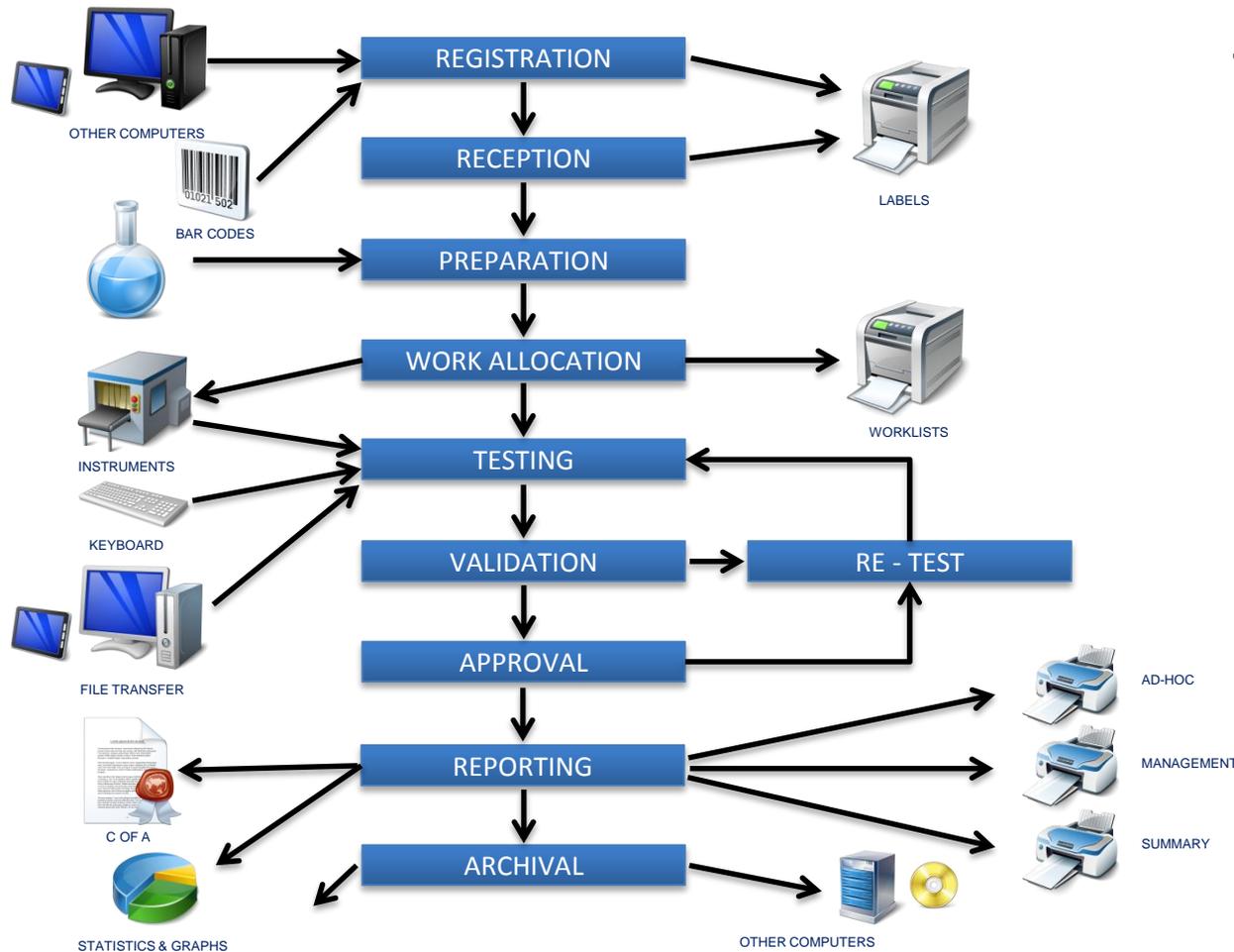
# Introduction

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

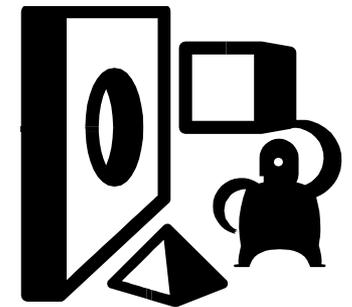
REPORTING

ARCHIVAL

# Procedures and LIMS

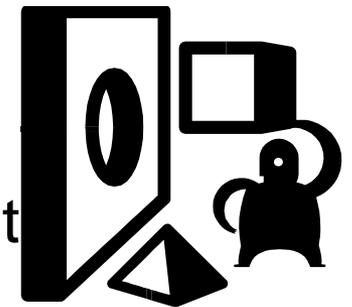
There are two choices:

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



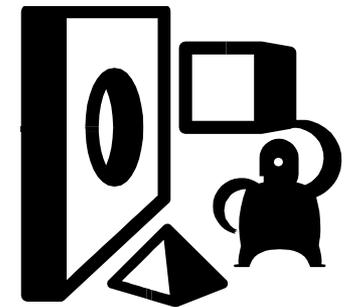
# Why is Configuration Needed?

- 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 requirements



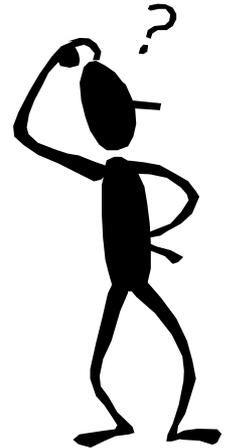
# Why is Configuration Needed (continued)?

- 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.

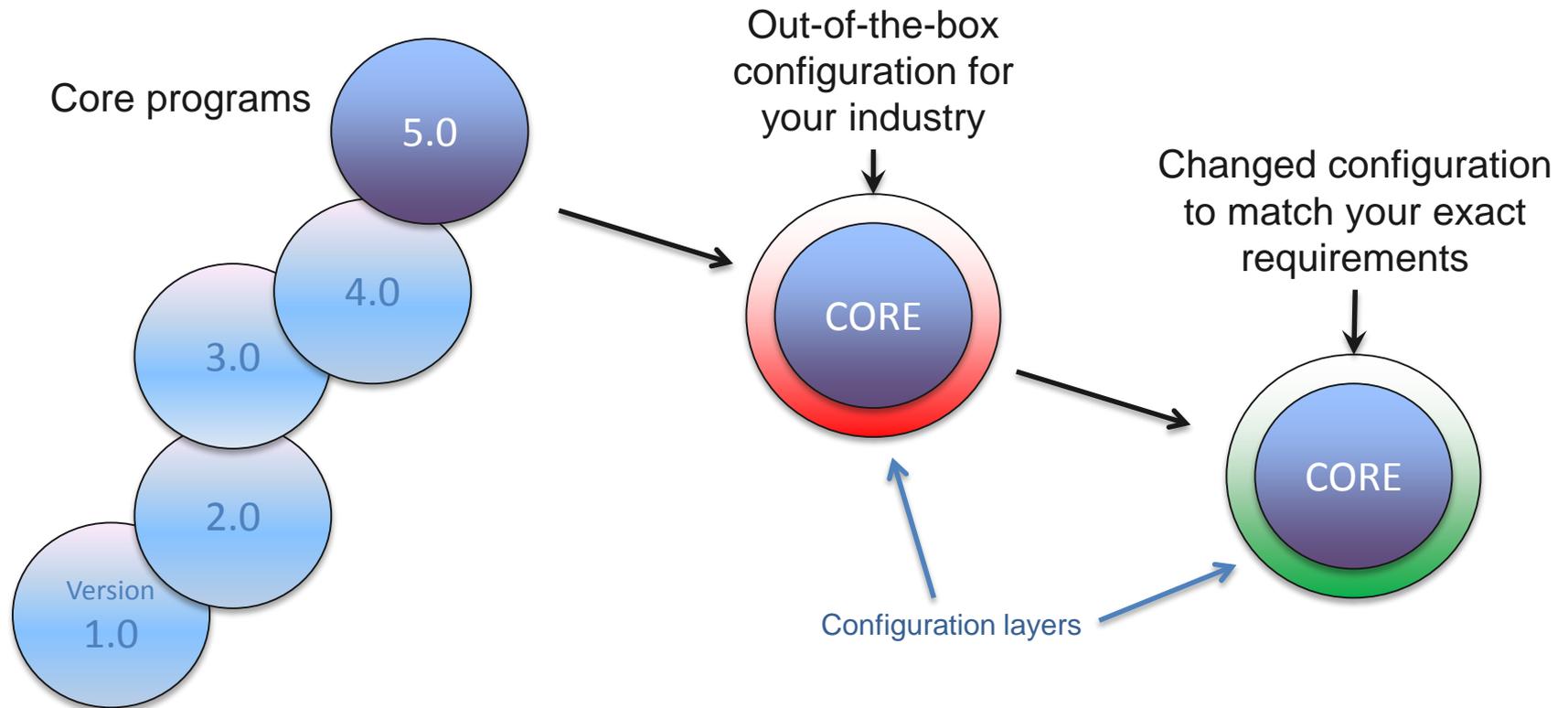


# Autoscribe Configuration Tools

- 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

The screenshot shows the Matrix Screen Editor interface. The main window is titled "Matrix Screen Editor - Samples awaiting review - PT00MMaterial/prepare [SampleManagementWorkflow]". The interface is divided into several sections:

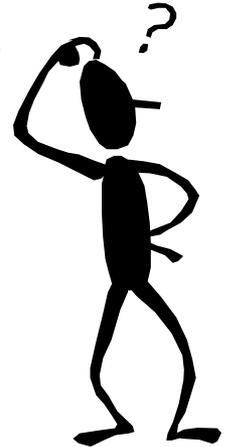
- Screen Being Configured:** The top-left area shows a preview of the screen with a date field set to "31" and a table with columns "MIS Code", "Customer", and "Sample Type".
- Controls Used In Display Screen:** The bottom-left area is a table listing controls used on the screen. The table has columns: ID, Title, Type, Tab Order, Tab Stop, Calculation, Size, and Function.
- Control Properties:** The top-right area shows the "Properties" panel for a selected control, with sections for Appearance, Behavior, Configuration, and Layout.
- Screen Controls:** The middle-right area shows a list of available controls with columns: ID, Function, Name, and Description.
- Screen Options:** The bottom-right area shows a list of options for the selected control, such as "AlternativeStatus", "AutoDisplay", "AutoImport", etc.

Five callout boxes at the bottom point to these sections:

- Screen Being Configured
- Controls Used In Display Screen
- Control Properties
- Screen Controls
- Screen Options

# 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





# Laboratory Process Flow



- Manage Samples
- Ad\_Hoc Query
- CoC
- Mgt. Reports

## Dashboard



There are 6 samples to test (ID : 20150807001)

Navigation icons and Bulletin Board icon



# “One-Stop” Status & Workflow Screen

**Sample Workflow**

Registration Accept Report

**Search Criteria**

From :

To :

Sample :

Batch :

Status :

Substance :

Submitter :

Samples found : 31

- Registered    - Received  
 - Prepared    - Tested  
 - Validated    - Approved

Sample	Status	Batch	Substance	Submitter
SMP-00000359	Approved	BH-00000022	Makeup Water North	AEC-Amersham (P
SMP-00000358	Registered	BH-00000022	Makeup Water North	AEC-Amersham (P
SMP-00000357	Registered	BH-00000021	Patient Screening	Flex Communicatio
SMP-00000356	Approved	BH-00000021	Patient Screening	Yone Medical Tech
SMP-00000355	Registered	BH-00000020	Drinking water	Flex Communicatio
SMP-00000354	Registered	BH-00000019	Drinking water	Cloud Scientific Tec
SMP-00000353	Approved	BH-00000018	Drinking water	Zumatrix Inc
SMP-00000352	Tested	BH-00000014	Makeup Water North	Autoscribe Ltd
SMP-00000351	Prepared	BH-00000017	Makeup Water North	AEC-Amersham (P
SMP-00000350	Approved	BH-00000017	Makeup Water North	AEC-Amersham (P
SMP-00000349	Approved	BH-00000016	Pasty	Autoscribe Ltd
SMP-00000348	Approved	BH-00000015	Patient Screening	Zumatrix Inc
SMP-00000347	Validated	BH-00000014	S&C Multivitamins Pastilles with ...	Zumatrix Inc
SMP-00000346	Approved	BH-00000013	S&C Multivitamins Pastilles with ...	Zumatrix Inc
SMP-00000345	Approved	BH-00000012	Makeup Water North	Zumatrix Inc
SMP-00000344	Validated	BH-00000012	Makeup Water North	Zumatrix Inc
SMP-00000343	Validated	BH-00000012	Makeup Water North	Zumatrix Inc
SMP-00000342	Received	BH-00000011	Pasty	Zumatrix Inc
SMP-00000341	Prepared	BH-00000011	Pasty	Zumatrix Inc
SMP-00000340	Approved	BH-00000011	Pasty	Zumatrix Inc
SMP-00000339	Approved	BH-00000010	Patient Screening	AEC-Amersham (P
SMP-00000338	Approved	BH-00000010	Patient Screening	AEC-Amersham (P
SMP-00000331	Approved	BH-00000008	Pasty	Sainsco Ltd.
SMP-00000330	Approved	BH-00000008	Makeup Water North	Autoscribe Ltd
SMP-00000329	Approved	BH-00000008	Makeup Water North	Autoscribe Ltd
SMP-00000326	Approved	BH-00000009	S&C Multivitamins Pastilles with ...	Sainsco Ltd.
SMP-00000325	Approved	BH-00000009	S&C Multivitamins Pastilles with ...	Sainsco Ltd.
SMP-00000324	Approved	BH-00000009	S&C Multivitamins Pastilles with ...	Sainsco Ltd.
SMP-00000323	Approved	BH-00000009	S&C Multivitamins Pastilles with ...	Sainsco Ltd.

NHS Number  Hospital Number  Surname  DOB

Search Reset

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

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

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 ▼▲
S100025~1_49_53	Path Store A	Rack 3	Shelf 1
S100025~1_49_54	Path Store A	Rack 3	Shelf 1
S100025~1_49_55	Path Store A	Rack 3	Shelf 1

Create new Slide

Maintain Slide

Maintenance

- Referring Hospitals
- SampleTypes
- Tests
- Locations

Total Cost of Tests on the Specimen £ 0

TAT in hours

Final Report

Exit



### Registration

Sample Registration

### Laboratory

Laboratory Samples

### Sample Views

Registered

Stored

In Process

In Transit

Received

Used Up

Disposed

All Samples

### Processes Pending

SampleID ▼▲	Site ▼▲
SMP1412030002	K-Rith
SMP1412030005	K-Rith
SMP1501050001	Laboratory
SMP1501050003	Laboratory
SMP1501060001	Laboratory
SMP1501060002	Clatterbiridg
SMP1501060003	St Thomas' I
SMP1501060005	

Records : 103

### Storage Pending

SampleID ▼▲	Site ▼▲
SMP1501060004	Guy's Clinical F
SMP1501080001	Guy's Clinical F
SMP1501080002	Laboratory
SMP1501080003	K-Rith
SMP1501080004	Laboratory
SMP1501080005	Laboratory
SMP1501080006	
SMP1501080007	Guy's Clinical F

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

Navigator

- Dashboard
- Maintenance Tables
- Employees
- Customers
- Job Roles
- Curriculum
- Events
- Competencies
- Management Reports
- List Editor



Login : admin  
Date : 01/10/2015  
Time : 10:41



Laboratory and Business Information Management Systems



Delivering Configurable Future-Proof Solutions



# Any Questions?

