

LIS Module



www.sysmex-ap.com

Enhance the operation of your laboratory with specialised work area management (WAM) software developed and supported by Sysmex.

HCLAB WAM is advanced middleware that supports the processes and workflow specific to Sysmex haematology and urinalysis work areas.

With several hundred installations, HCLAB WAM is the perfect partner for your laboratory.

Introduction

HCLAB WAM is a highly flexible middleware solution enabling a sophisticated level of automation for the modern laboratory. HCLAB WAM provides a single connection to a third-party Laboratory Information System (LIS) and / or Hospital Information System (HIS).

At the heart of HCLAB WAM is the robust and extensive interface service, paired with advanced rules-based decision support technology which provides the engine-room for your laboratory. This allows the laboratory to apply rules to determine slide review, auto verify test results, real-time delta checking and auto repeat and reflex testing.

The intuitive user interface is a highly functional workstation for all laboratory staff, facilitating dynamic management of all requests and results processing through the laboratory.

The core function of HCLAB WAM is complemented by instrument interface connectivity, quality control, tools for laboratory management and patient report creation to complete the solution.

Benefits of HCLAB WAM

Automates processing and minimises operator intervention	Reduces unnecessary paperwork	Improves consistency and quality of results
Provides advanced decision support	Improves TAT for routine and priority tests	Enables staff to work on other lab tasks

Order Entry

HCLAB WAM provides a comprehensive patient demographic and order entry system allowing you to easily create and manage patient orders; improving the efficiency of your patient and specimen reception area. Features include:

- Order and patient data download via an HCLAB WAM interface to the LIS/HIS
- Add orders to registered and non-registered patients
- Quick Mode Entry place an order without entering patient demographic data
- User-definable Order Panel to allow rapid order entry for common order profiles
- Entry of free text patient comments are supported
- Entry of internal messages are supported
- Integration with the Patient Master Index to automatically populate the patient demographics
- Alert on duplicate orders
- Use order entry rules to automatically add test(s) based on patient and sender information
- Specimen barcodes can be created at order entry to allow immediate labelling



User Interface

HCLAB WAM's intuitive, user-friendly graphical user interface enables laboaratory staff to get up to speed quickly, with minimal training.

Navigation through the product is by way of icons or menus, and the main menu graphics and icon names can be customised for each user, aiding familiarity.

The One Screen Management concept in HCLAB WAM emulates the workflow in the haematology and urinalysis work areas, providing users visibility and control of the entire testing process.

Separate areas withing the UI guide the review of each patient and their results. A highlight of this is the capture and display of graphic images from the instruments within the WAM UI, for example:

- Sysmex Urinalysis UD-10 digital images
- Sysmex Haematology XN Series scattergram

Manual test results such as WBC differential and other microscopy results can be easily entered into HCLAB WAM via functionality provided by the built-in DIFF pad or Urine pad.

SID 150020031 Analyzer Grou ALL		WB EDTA Order DT 28-11-20 Collection DT	19.07.09.00	TEO LI CHEN PID 0046685 OBG LABOUR	Sex FE		DOB 09 N KOK		Age 5					
-Pending -Partial (0	(0)	Check-in DT 28-11-20	019 07:25:00							🧮 🖂 🖀 R12	3			
- Queue (5)	Test Name	Curr.Result	Prev.Result	Prev.Date	RP	R1	R2	R3	Comment	Unit	Ref. Range	WBC-BASO	IMI
-Routin														
-STAT -Rerun (0)		Total WBC	H 11.3		1							4.0 - 11.0	20.00	
- Herun (0) - Unreg (0)		Total RBC	L 3.3		1						x10^12/	3.8 - 5.2	10	
- Complete		Haemoglobin	L 10.1		1						g/dL	12 - 16		
DIFF (0)	,	PCV	L 31		1						%	36 - 46	Same and the second	the second second
-Smear (0		MCV	96		1						fL.	80 - 100	RET	DIFF
- ToHost (MCH	31		1						pg	27 - 34		
		MCHC	32		1						g/dL	31 - 36	100	
SID	Name	Platelet Count	202		1						x10^9/L	150 - 400	Alter	
150020011	RICHARD MELON	Basophils	0		1						%	0-1		
150020011	NURUL BT FAIZAL	Eosinophils	6		1						%	1-6	25	
150020021	TEO LI CHEN	Lymphocytes	L 11		1						%	20 - 40	<u>20</u>	
150020031	NATALIE A/P MUTH	Monocytes	4		1						%	4 - 10	NRBC	PLT-O
150020041	ALFRED WILLIAM	Neutrophils	H 79		1						%	55 - 62		
													RBC PLT	
<	>													
EMOLAB - [SA :	SYSTEM ADMINISTRATOR] · [DEFAULTPROFILE]												LR251 2.5.1 📮
EMOLAB - [SA ::	SYSTEM ADMINISTRATOR] - [DEFAULTPROFILE]												LR251 2.5.1



Rules Engine - Decision Support Technology

A key point of difference in HCLAB WAM is the sophisticated Rules Engine, which supports the creation of customisable rules to aid in decision making.

This technology helps to ensure the consistent execution of procedures and improves workflow efficiency for routine and priority tests.

An easy to use UI allows administrators to build rules on numerous data points, including test results, instrument flags, delta violations, wards/clinics, clinicians, patients, order priorities, patient clinical info, patient gender, and patient ages.

HCLAB WAM Rules Engine automates special requests from the physician at the point of order, such as the placement of additional tests; and can attach instructions to testing staff during order entry based on provider and patient information.

The Rules Engine conducts real-time data checks on data received from the analyser(s) based on predefined values e.g. upper/lower limits, panic values and previous results for each parameter.

Utilising the decision support technology and standard rules in HCLAB WAM; decision making for auto verification of normal results, auto comment, repeat and reflex testing can be achieved.



HCLAB WAM Workstation

HCLAB WAM 's advanced rules engine supports your lab team with intelligent decision making for all results.

Patient Reports

Patient report formats are customisable and results can be presented in both numerical and graphical format. In addition, HCLAB WAM offers cumulative patient reports to satisfy the requests of individual customers.

Laboratory Management

Laboratory statistics are available at a glance through a graphical user interface. The management dashboard provides real-time monitoring of daily performance, key metrics and throughput of the laboratory.





Quality Control

HCLAB WAM includes a comprehensive quality control (QC) module, designed to make QC management efficient and easy. QC features include:

- Support for both numerical and textual QC results
- QC graphs for trend analysis
- Multi-level per assay Levey Jennings plot
- Twelve configurable Westgard rules and real-time Westgard checks
- Calculated sigma value using six sigma technologies





Technology Overview

Smart Client Application	HCLAB WAM is a Smart Client solution that delivers the combined advantages of web and desktop application.
Standard Technology	HCLAB WAM is built on the latest industry standards utilising Microsoft technologies and Oracle Relational Databases, assuring platform capabilities for system integration and future expansion.
Scalability	Configuration can be stand alone or a multi-site/multi-analyser environment. Communication is achieved via Serial RS232, the Ethernet TCP/IP standard and HTTP connection.
Interoperability	HCLAB WAM provides a single connection to a third-party Laboratory Information System (LIS) and / or Hospital Information System (HIS). Standard ASTM Host interface module. Integrates seamlessly into the laboratory and hospital environment.
Instrument Connectivity	Sysmex Urinalysis plus haematology instrumentation, including coagulation and HbA1c. Contact your Sysmex representative for more information about HCLAB WAM instrument connectivity.

For more information about how HCLAB WAM can improve the operation and throughput of your laboratory and enhance your LIS, please contact your local Sysmex representative.

Sysmex Asia Pacific Pte Ltd Tel +65 6221-3629 Fax +65 6221-3687 www.sysmex-ap.com

Sysmex India Pvt. Ltd Tel +91 (22) 6112-6666 **www.sysmex.co.in**

PT Sysmex Indonesia Tel +62 (21) 3002-6688 Fax +62 (21) 3002-6699 www.sysmex.co.id

Sysmex (Malaysia) Sdn Bhd Tel +60 (3) 5637-1788 Fax +60 (3) 5637-1688 **www.sysmex.com.my** **Sysmex New Zealand Ltd** Tel +64 (9) 630-3554 **www.sysmex.co.nz**

Sysmex (Thailand) Co., Ltd Tel +66 (2) 032-2536 Fax +66 (2) 116-5396 www.sysmex.co.th

Sysmex Philippines Inc. Tel +63 (2) 621-2460 Fax +63 (2) 621-2432 **www.sysmex.com.ph** **Sysmex Vietnam Co., Ltd** Tel +84 (8) 3997-9400 Fax +84 (8) 3997-9405 www.sysmex.com.vn

Sysmex Vietnam Co., Ltd (Hanoi Branch) Tel +84 (4) 3776-7020 Fax +84 (4) 3776-7022 www.sysmex.com.vn

Sysmex Australia Pty Ltd Tel +61 (2) 9016-3040 www.sysmex.com.au