

1) What is the name of your company's laboratory information system (LIS)?

2) What is its primary function (ie, what does it do for the lab)?

3) How does your middleware support user control and configuration?

4) Does your LIS support/include:

5) Does your middleware include offline user control and/or configuration tools?

6) What are the three most important needs including LIS, automation, and instrument gaps that your middleware can fill?

7) How is pricing structured?

8) How are new users trained, and how do you maintain users' proficiency? In addition to traditional (phone) tech support, what resources are available to help users resolve questions?

9) What makes your middleware unique in the marketplace?

<b>Apex Healthware LLC</b> San Antonio (210) 764-9900 www.apexhardware.com	<b>Beckman Coulter</b> Brea, Calif (800) 526-3821 www.beckmancoulter.com	<b>COVE Laboratory Software</b> Sonoma, Calif (707) 938-3075 www.covelab.com
Apex Connector	REMISOL Advance Data Manager	InvMan (Inventory Manager)
Accepts orders from third-party, stage on device (where possible), accepts device results, and sends HL7 results message back to source of order.	It provides real-time information for improved workflow and results management; consolidates patient test information from several instruments from multiple sites; and empowers users to access and manage information from a single workstation.	Tracks all reagents and supplies and instrument service needs and records.
Separate management console that allows update of database rules.	User-discrete menu access configuration is achievable, and permits the establishment of unique passwords.	The user has complete control over how the InvMan application is used.
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Yes	Yes. User configuration is accomplished via the REMISOL Advance user interface and via the REMISOL Advance "Intranet" option, when activated.	Yes
Reliable, low-cost interface between device and LIS/EHR systems.	Total lab solutions connectivity and single vendor support. Advanced rules configurator with a "rules library" that can enable and disable autovalidation by instrument, instrument group, or the whole lab. Capacity to tie QC results to patient results via audit trail and quick access with an integrated multiwindow desktop environment.	Reduces hands-on time to determine the needed level of reagents and supplies for testing by automated scanning of reagents and supplies. Alerts users when reagents are set to expire. Reports to the user what reagents in the proper quantity and at the right time.
By device	REMISOL Advance is priced by lab configuration including the number of instruments	A one-time user license, which includes all version upgrades (current is version 7.0)
Provide both web-based and on-site training	Training: Classroom, on-site, E-learning, and user group forums Resources: Self-help online guide, Quick-reference guide, and Troubleshooting guide	Comprehensive user manual with tutorials, web seminars in how to optimize the system's benefits, unlimited phone and e-mail support.
Low cost with no performance or reliability penalty.	Connects instrumentation and automation solutions across multiple sites; uses autoverification procedures to address inspection requirements; customized reporting capabilities; and monitors the quality of diagnostic system operation using patient-weighted moving average data.	An easy-to-use inventory and instrument service management system with a wide range of functions, including bar code scanning of reagents, financial reporting, and purchase order generation.

<b>Dawning Technologies Inc</b> Fort Myers, Fla (239) 931-6004 www.dawning.com	<b>Dawning Technologies Inc</b> Fort Myers, Fla (239) 931-6004 www.dawning.com	<b>Orchard Software</b> Carmel, Ind (800) 856-1948 www.orchardsoft.com
JResultNet Middleware	JavaLin/PDI	Orchard Copia
Manages the data flow between large arrays of laboratory instruments and LIS/HIS/EMR. It provides a range of capabilities including support of different communication protocols at each connection point.	A small-footprint clinical interface that is typically used to connect one or two remote instruments to an LIS/HIS/EMR. It replaces the need for local PCs or terminal servers to handle instrument connectivity.	Copia is used by laboratories and lab networks doing outreach, links multiple labs, and enables web-based access and EMR integration for order entry and result delivery.
Configuration tools, including support of all industry standard protocols, a complete set of message mapping tools, and easy-to-use rules features.	Configuration tools, including support of all industry standard protocols, a complete set of message mapping tools, and easy-to-use rules features.	Users can manage their own interfaces with proper training.
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The JResultNet Middleware Rules Development Kit can be used within JResultNet or offline, on a separate PC from the running middleware application.	Users can develop, test, and validate rules that can be applied to the JavaLin/PDI connection.	Yes
Enhanced rules-based processing capabilities in support of autoverification, making lab processes more efficient, speeding up turnaround time, and improving patient safety. It can scale to grow with the needs of a laboratory QC system connections, database connections, and other data management concerns.	The affordable device connectivity solution enables the LIS to communicate with a wide variety of analyzers without the need for interface development. It provides rules-based processing capabilities at the instrument level, which allows end-users to customize the data flow to meet their needs.	Provides lab/EHR hub connectivity along with an Internet portal for remote review. Ideal connectivity tool for outreach and EHR integration: can bolt-on to your legacy LIS and allows you to implement your own EHR interfaces. Ideal for reference laboratories to manage client services, courier routes, and client inventories.
The price of JResultNet scales to meet the needs of each laboratory.	The JavaLin can provide a full middleware solution for a single analyzer for less than \$2,500.	Price is based off of client configuration.
Comprehensive documentation, access to the technical support department and online knowledgebase. Classroom, on-site, or web-based training is available.	Comprehensive documentation, access to the technical support department and online knowledgebase. Classroom, on-site, or web-based training is available.	New users are brought to corporate headquarters for a week-long training with training specialists. After installation, there are more advanced classes to learn about managing interfaces and administrative tasks.
JResultNet Middleware is Java-based and modular, offering customers a scalable solution that is able to serve both enterprise-wide multi-hospital autoverification implementations and single-instrument connections. It can be configured to best complement the existing workflow of a lab.	It provides a dedicated CPU and memory at the instrument, allows the communication driver to be run locally, and reduces processing demand on the host system. Onboard rules features are available, accommodating most customizations to desired data processing at the instrument level.	Orchard Copia can bolt-on to legacy LIS, provides EHR connectivity, and allows implementation of your own EHR interfaces; in addition, it provides Internet access for remote order entry and result delivery; it can be configured uniquely by lab client and by sign-in location; and more.



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Orchard Trellis	e.lixa	Sysmex WAM	WAM Select
Trellis is an orders and results management software program that serves as a simple “review, click, and go” cost-effective bridge for electronically passing orders and results between low-volume, point-of-care analyzers/instruments and the EMR.	Extend laboratory LIS to include advanced functionality and bridge communications between the LIS and other internal and external components.	A hematology information management system that consolidates data from multiple analyzers, performs rules-based functions for auto-validation and automated reflex/rerun testing, and communicates this information to the LIS.	A streamlined hematology information management system that performs complex rules-based functions for auto-validation and reflex/rerun testing for hematology CBC and auto-differential results.
Requires very little training and can be installed in less than a day.	Yes	Sysmex WAM has multisite and multi-LIS capabilities. Permits subsite rules where needed for added flexibility.	WAM Select allows users to easily and independently manage their decision rules in hematology.
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Yes	No	Sysmex WAM is delivered to the customer preconfigured with customer-specific rules and settings. The database and rules are ready for customers to start verification and workflow testing with Sysmex analyzers and devices.	WAM Select is delivered with a standard set of hematology and body-fluid rules that can be copied and modified to reflect customer best practices. It also has an onboard rule tester and conflict checker.
Automatically sends point-of-care test results to your EMR. Simple software for viewing POC orders and results before releasing them to your EMR. Cost-effective and easy to use, install, maintain, and upgrade.	Connects physician’s office EMR and practice systems to labs. e.outreach gives physicians secure online access to critical patient care information and fast, accurate online order entry directly from the physician’s office. A powerful relational database that provides discrete storage of all clinical and anatomic pathology data to provide advanced data mining capabilities.	Intelligent Rules Engine, designed specifically for hematology, allows for auto-validation rates averaging 85% to decrease tech workload and reduce turnaround times. Management Reports Module provides real-time data mining and generates reports that help management evaluate productivity, staffing, lab efficiencies, and turnaround times.	Intelligent Rules Engine, designed specifically for hematology, allows for auto-validation rates averaging 85% to decrease tech workload and reduce turnaround times. Designed for use in small to medium-size labs, it improves result-handling consistency by incorporating standardized rules across shifts. Allows users to easily and independently manage their decision rules in hematology.
Pricing is based on client configuration; dependent on licensing; and the number of host and instrument interfaces.	One-time setup fee then monthly maintenance fee, or subscription model.	Configured and priced by hematology test volume, number of analyzer and workstation connections, number of multi-site connections, and complexity of the automation line(s).	A moderately priced product based on limited volume and analyzer connections.
Users are trained via week-long classes at our corporate headquarters, online tutorials, and with annual user symposiums.	Internet and teleconference-based training; on-site training is available. User groups and symposia, manuals, and product documentation.	Classroom, on-site, and e-learning modules available for training and proficiency review. WAM Technical Assistance Center and Customer Resource Center.	There are e-learning modules and user guides available for training and proficiency review. WAM Technical Assistance Center and Customer Resource Center.
It efficiently and effectively interfaces your POC instruments with your EMR without the need for extensive training and information technology support.	e.lixa is a suite of add-on applications that extend and enhance a laboratory’s existing LIS with web-based outreach capabilities, and advanced result-management reporting brings the latest LIS technology to existing LIS systems at a cost less than replacement.	Sysmex WAM’s flexible Intelligent Rules Engine is designed specifically for hematology, with extensive rule-variable combinations for which to build rules for auto-validation, reflexing, add-on testing, generation of manual differential smears, sample routing, and more.	WAM Select was designed specifically for small to mid-size hematology laboratories, providing them the same flexible Intelligent Rules Engine as our larger lab customers for auto-validation rates averaging 85% or greater, but streamlined for their size.