

Customer Spotlight: Aqueduct's Rules Speed Up Workflow at Mayo

The Mayo Clinic's Hematology laboratory is a busy place! With a volume of 2,000 CBC's a day, the staff in the Hematology/Hematopathology laboratory has a monumental task to review the nearly 30,000 test results produced by the Central Clinical Laboratory's three Beckman Coulter hematology instruments.

In 1999, while preparing to upgrade to the Beckman Coulter GenS, Mayo Clinic turned to Beckman Coulter for solutions that would allow them to cope efficiently with the workflow. Beckman Coulter's answer was to bring together Mayo, Beckman Coulter, and Orchard Software to develop and install Orchard Software's Aqueduct™ Hematology Workflow Manager.

While a previous Beckman Coulter software package, HIIS, had some rules-based result evaluation, it wasn't the more complete solution that Mayo was looking for. Aqueduct allowed the hematology lab to address wider concerns: the ability to apply rules for result evaluation consistently across all instruments, the ability to release preliminary results to the LIS if no rules were triggered by abnormalities, and the ability to perform manual slide reviews on-line, eliminating the need for paper, as technologists performed follow up on the abnormal test results prior to final approval.

Sylvia Klomps, Hematology/Computer Specialist at Mayo, said, "The techs love being paperless - although

that took some adjustment initially!" The ability to review abnormal results in the "Trapped" status allows technologists in the Central Clinical Lab to quickly route samples to the tenth floor Hematopathology lab for further evaluation by



Marissa Fitzgibbons, Thanb Weeks, and Eric Franck reviewing slides in the microscope area.

specialists. Results that are normal and do not trigger any rules are automatically approved and transmitted to the LIS without technologist intervention. As samples are sent to the tenth floor lab, their status is changed to "In Transit" before being placed

in Mayo's ETV (Electronic Transport

System) for transport. Once the samples are received on the tenth floor, their



Marcy Kuwalske receives samples from the ETV system.

status is changed to "In Heme Lab," conveniently alerting all staff members to the sample's

location. In the Hematopathology lab, the sample may be rerun on the Beckman Coulter instrumentation, or may have a manual differential performed on-line using Aqueduct's specialized Hematology review window.

Technologists can add the appropriate comments necessary for interpretation

See "Spotlight" on page 2

New User Groups!

Orchard Software has created new user groups for our other software products - Orchard Aqueduct, Orchard Copia, and Orchard Harvest CT. If you use of one of these products, you may wish to participate in these online forums. Like our other user groups, participation occurs via email; to participate, all you need is an email account

and a valid support contract.

Orchard Software partners with YahooGroups.com to provide these forums for our users. If you would like to participate, log in to the client-only area at http://www.orchardsoft.com/customer_area/login/login.asp then follow the links to sign up for the groups you wish to join. ●

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Ensuring the Security of your Harvest Webstation Server

Harvest Webstation is a powerful module for Harvest LIS that can give you flexibility of order entry and patient result reporting from remote locations. With increased flexibility and use of Internet technology, additional security measures are available to help protect your Harvest Webstation server from unauthorized access or harm. You may or may not need to use each security measure, depending on whether you use an intranet or the Internet to connect users to your Harvest Webstation server.

Using an Intranet

An intranet is a private, local network accessed by computers within an organization. When you use an intranet, your Harvest Webstation server can only be directly accessed by computers within your network. By not making your server available on the public Internet, you decrease the chance anyone outside of your network can see your data. An intranet can be less costly to maintain than the equipment needed for opening

access to Harvest Webstation over the Internet. Intranets work best for laboratories that can limit Harvest Webstation access to PCs within their network.

Using the Internet

The Internet is public and available to anyone in the world who has a connection.

When you open your Harvest Webstation server to Internet users, you have the advantage of allowing remote locations to access the data without being part of your network. For example, a physician on call could sign in to Harvest Webstation and access patient results from any computer that has Internet access and a browser. Using Internet connections may be the best solution for reference labs and large facilities that need to make results widely accessible. Allowing access to Harvest Webstation over the Internet requires additional maintenance of the server and enhanced firewall protection to keep your data and network secure.



Best Practices for Internet Safety

Here are some best practices for keeping your server safe from viruses and malicious programs that have the potential to cause damage to your computers and data:

Make sure that your server computer is fully patched with all of the latest service packs and security updates from Microsoft before you expose it to the Internet.

Turn off any Microsoft Internet services like IIS (Internet Information Server) and/or SQL Server if they are installed on your server. Harvest LIS has its own database server and web server that is not vulnerable to many of the harmful viruses that affect Microsoft products.

Make sure your server has up-to-date antivirus software installed, and it can automatically receive virus updates as they are released by the manufacturer.

Make sure your server is behind a firewall.

If you are offering Harvest Webstation over the Internet, purchase a 128-bit SSL certificate and only allow secure connections into your lab database.

If you are offering Harvest Webstation over the Internet and you decide to not use SSL, consider changing Harvest Webstation's TCP/IP port number from 80 to another number.

Consider upgrading your server to Windows 2000 if it is still running Windows NT 4.0. Windows 2000 is more secure and more actively supported by Microsoft.

For further information on these options, login to our website www.orchardsoft.com/customer_area/login/login.asp for the "Suggestions for Keeping your Harvest Webstation Server Secure" Tech Tip. If you would like to discuss your Harvest Webstation security settings, please contact Orchard Software's Technical Services department at (800) 571-5835. ●

Spotlight

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by the clinical staff prior to approval. Once approved, Aqueduct then transmits the results to the LIS, which then relays them to the clinical information system.

The efficiencies gained by using the Aqueduct system have made the workflow easier to handle. "We've been able to decrease FTE time spent in the verification process. This has allowed us to handle increased testing volume without the need to increase FTEs," Vicky Soppa, Hematopathology Supervisor, told us.

Since implementing the Aqueduct system, Mayo Clinic has opened a small stat lab, located in another building. The Beckman Coulter HemX instrument in

the stat lab is also linked to Aqueduct. The flexibility of the rules engine has allowed Mayo to integrate a different instrument while handling the somewhat

unique needs of the Hematology/Oncology clinic that the stat lab services.

Using Aqueduct's advanced rules engine, the Hematology lab has also been able to develop protocols that help identify lymphoma patients, thus assisting clinicians and

consultants in diagnosis.

Sylvia concluded, "We're very enthusiastic about Aqueduct - and always willing to talk about it. Just being paperless makes a huge difference, and we know we can rely on the rules we have built to assist us with result handling." ●



Shawn Einerson and Nancy Koelsch Manley in the Hematopathology lab.

Electronic Newsletter

If you're looking for an electronic version of our newsletter (and past newsletters), go to...

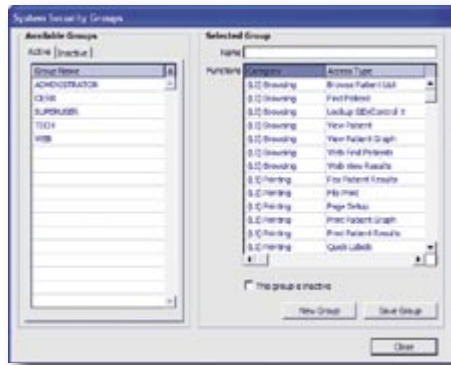
http://www.orchardsoft.com/news_links/newsletter/newsletterarchive.html

Tech Tip Security

With increasing requirements on protecting patient information, Orchard provides fine-tuned control over security settings in its laboratory information systems. Harvest LIS, Harvest Webstation, and Aqueduct offer a highly flexible security model that allows you to control user access to information at both the test result and feature levels.

Creating Groups

You create groups to control security for specific job functions within Harvest LIS. This allows you to assign a few groups to many different users. Once you create a group, you may assign one or more functions or tests to the group. Use the mouse and [Ctrl] or [Shift] keys to select more than one item for the group. Note: To export a group's selected options, click on the group name and click the Category header bar. Copy and paste the list into a word processing or spreadsheet document.



restricted for your group, you will also see "RESTRICTED" for the order choice name/abbreviation for on-screen results and delivered reports.

System Security Groups

System Security Groups control access to the functions in Harvest LIS, Harvest Webstation, and Aqueduct. The options are grouped by category, and within each category are specific functions for restriction (e.g., access the Event Log, or reject order choices). Each group may have options from any of the following categories:

- **Browsing:** Contains restrictions for viewing patient data in Harvest LIS, Webstation, or Aqueduct.

- **Printing:** Contains restrictions for printing or faxing data from Harvest LIS, Webstation, or Aqueduct.
- **Sample Management:** Contains restrictions for processing order choices and tests via reference lab and analyzer interfaces and Work in Progress.
- **Ordering:** Contains restrictions for inputting orders through Order Patient Samples, Release Stored Orders, and Harvest Webstation.
- **Quality Control:** Contains restrictions for access to Quality Control files.
- **Reviewing:** Contains restrictions for approving or rejecting results. Also contains restrictions to menu options for creating backups, opening log files, and viewing AutoScan Explorer.
- **Administration:** Contains restrictions for accessing security settings, table setup, and system preferences.

For more information on specific System Security Groups, please see the online help for your Orchard product.

See "Tech Tip" on page 4

Results Security Groups

Results Security groups control access to viewing information on lab tests. You may select order choices that contain restricted tests on Order Patient Samples in Harvest LIS or Aqueduct, or Order Samples in Harvest Webstation, but you may not view the lab test name and results when viewing on-screen results and delivered reports. Instead, you will see "No Access." Note: If all the lab tests attached to an order choice are



Employee Spotlight: Gordon Saager

Many of you have had the pleasure of meeting Gordon Saager during the installation of your Orchard system. Gordon, as a Senior Systems Engineer with Orchard Software since 1998, has done numerous installations all over the United States. When he's not on the road (Gordon is on the road over 35 weeks a year), Gordon assists with training classes and tech support.

As a Medical Technologist for over 28 years, Gordon has worked in laboratories of all sizes - from small rural hospitals to larger urban hospitals and reference labs. After his career as an MT, Gordon was a CAP inspector for several years, and did laboratory consulting

for regulatory and accrediting compliance. Gordon has also trained and consulted with boards of directors for nonprofit organizations and done some profes-



sional acting. Maybe you've spotted Gordon in his overalls as the proud orchard grower in Orchard's print and direct mail advertisements.

Besides his immense passion for travel (and we're happy for that), Gordon enjoys photography,

cooking for friends, and wine and beer making. He has a terrific wife with whom he enjoys spending time (when he gets the chance), and he loves to visit with his children and grandchildren.

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If you are not on our mailing list and would like to be, please call us at (800)856-1948, fax us at (317)573-2633, or email us at news@orchardsoft.com.

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If you have any questions or suggestions, please contact our Publisher, Greg Wilson, or Editor, Kerry Foster, at (800)856-1948.

Electronic versions of the newsletter can be viewed at http://www.orchardsoft.com/news_links/newsletter/newsletterarchive.html

Tech Tip

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Webstation Security Groups

If you use Harvest Webstation, you may also create Web Provider and/or Web Location groups. Harvest Webstation uses these groups to control access to patient information and results when users order patient samples, look up patient results, and access completed orders and orders in progress. For further information, please see the Harvest LIS Help topic "Customizing Harvest Webstation Security."

Assigning Groups

Once you have created the security groups, you must assign them to users on the Edit User Security screen. Each drop-down list contains the security groups you created. Once users belong to one or more groups, they can access the results and/or perform the functions to which they now have access. ●

Stop by our booth and visit us!

2/22-2/26	HIMSS	Orlando, FL
3/05-3/06	Carolinas Clinical Connection	Wilmington, NC
3/10-3/12	Lab InfoTech Summit	Las Vegas, NV
3/23-3/24	KSCLS Annual Spring Meeting	Lexington, KY
3/28-3/30	CLMA	Atlanta, GA
4/14-4/15	NE Region Conference	Boxborough, MA
4/21-4/24	CLSA of Alaska	Anchorage, AK
4/27-4/29	Ohio River Valley CLMA	Dayton, OH
4/28-4/30	MoCLS/CLMA	St. Louis, MO
6/17-6/18	LIS Buyer Seminar	New York, NY
7/27-7/29	Clinical Lab Expo/AACC	Los Angeles, CA

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Address Correction Requested

Orchard Training P.A.C.E.® Approved!

During the first week of the new year, we received confirmation that Orchard Software has been approved as a provider of continuing education programs in the clinical laboratory sciences by the ASCLS P.A.C.E.® program.

All Orchard Software training classes conducted starting with the 2004 calendar year will receive P.A.C.E.® credit as noted below:

Orchard Harvest System Administrator Training: 31.5 contact hours

Orchard Harvest Microbiology Module Training: 19.0 contact hours

Orchard Harvest Advanced User Training: 30.5 contact hours

Orchard Software is very pleased to be able to include P.A.C.E.® credit as part of our educational services to our customers. Now you can earn P.A.C.E.® credit while learning more about Orchard's lab systems. ●

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P.A.C.E. approved!

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