

Implementing a 'Paperless' Laboratory

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GBI Crime Lab Overview

- Approximately 260 staff members
- Primary provider of forensic services to state of Georgia
- Headquarters lab plus seven regional labs located throughout the state



Establish Goal

- Eliminate the generation of paper?
- Eliminate the storage of paper?

Volume of Data

- How much data will be generated?
- How long will it be maintained?
- How long can you wait to access it?

Hardware

- Primary storage and servers
- Backup servers
- Local servers (if multiple lab sites)
- Personal workstations (laptops or PC)
- Data communication (if multiple sites)

GBI-DOFS Infrastructure

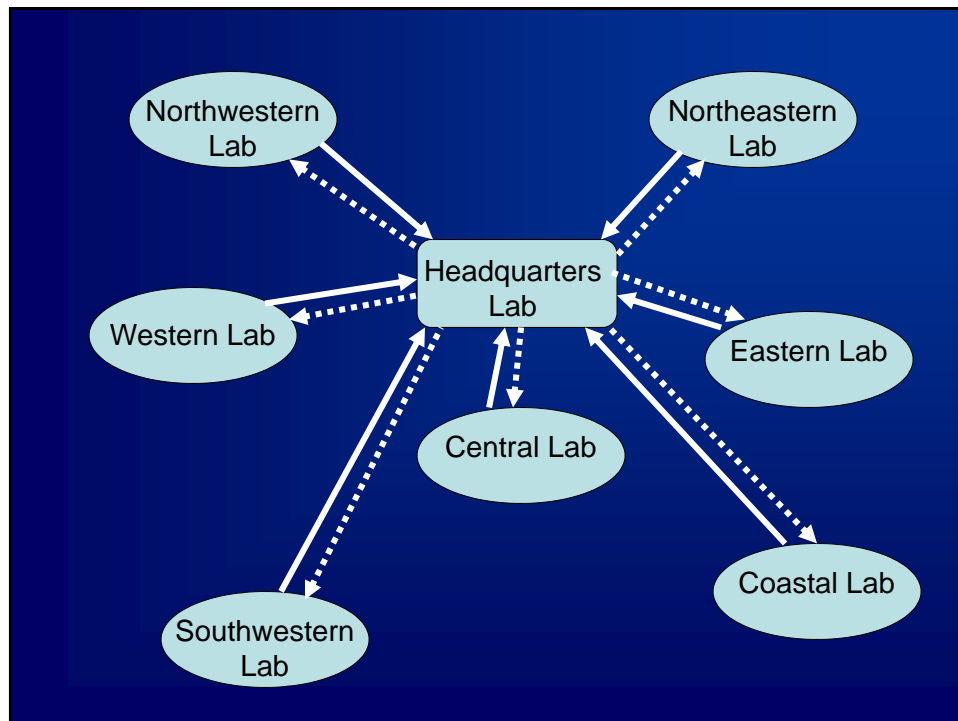
- Headquarters Laboratory
 - Primary repository for all data and images
 - Primary server with
 - 8 GB RAM and Quad Xeon processors
 - 5 TB SATA storage
 - Tape backup
 - Backup server
 - 4 GB RAM and Dual Xeon processors
 - 5 TB SATA storage
 - Optical disk archival system

GBI-DOFS Infrastructure

- Regional Laboratory
 - Secondary repository for data and images
 - Server with
 - 3 GB RAM and Dual Xeon processors
 - 1 TB SATA storage

GBI-DOFS Infrastructure

- Staff
 - Every staff member has either a desktop or laptop computer
 - Barcode scanners are available at all relevant computers
 - Instruments are added to the LAN



Types of Data

- Manual or direct entry
- Scanned documents
- Photographs
- Print to file
- Computer generated reports

Image Records

Common Points

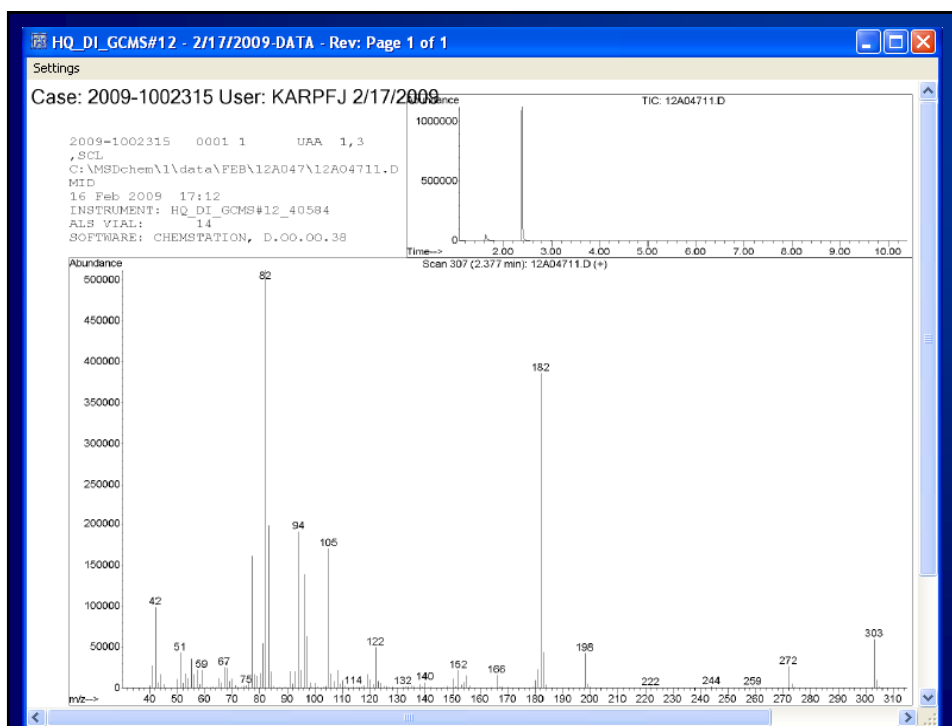
- Image files are linked to a specific piece of evidence, a specific service request or to the overall case record.
- Image files are annotated with the identification of the user who added the record, the date it was added and relevant case identification.

Photographs

- Digital photography equipment located in every section
- Evidence packaging photographed at time of submission to document condition of package and seals
- Visual observations of analytical results, e.g. color change tests or firearms comparisons are photographed

Analytical Instrument Data

- Data can be added in batch mode to a group of cases or a single document to a specific case
- Data is representative of what would normally be printed to hard copy files

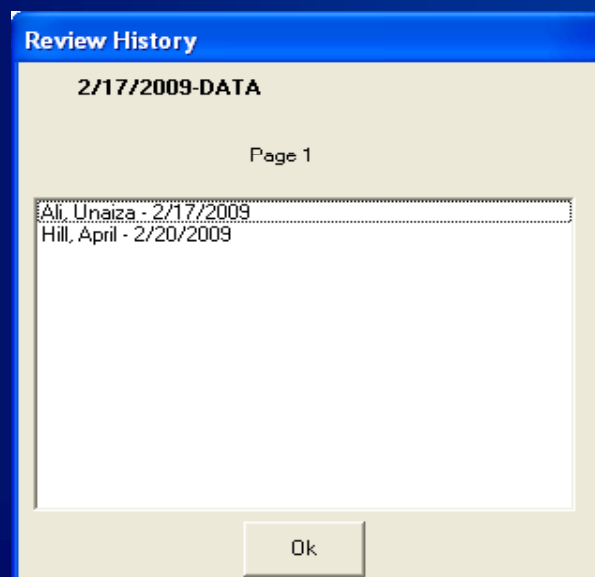


Reports

- All reports are originally generated via Crystal Reports from data stored in LIMS
- Following review reports are converted to PDF files
- PDF reports are distributed via a secure web site
- End users print or request reports via the web site

Benefits of the 'Paperless' Lab

- Immediate access to data
- Facilitates Peer Review
- Facilitates responding to FOI or discovery requests
- Improves customer support
- Helps satisfy accreditation requirements



Conclusions

- Learning curve for staff on how to fully utilize capabilities of system: 1-3 months
- Large investment in hardware
- Substantial reduction (>80%) in amount of paper purchased and utilized by the laboratory
- No paper related to casework stored at GBI-DOFS in nearly 10 years

Conclusions

- Prevents loss of data and records
- Case files available to multiple individuals simultaneously
- Requires dedicated support staff
- Data security maintained through user permissions, backups and audit trails

Acknowledgements

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