Date: 03 June 2014
Presenter: Slee Mbhele
Company Overview

- Founded in 1987
- Freezerworks launched in 1992
- 25 employees
- Over 1400 installations world-wide
Core Strengths

• Experience in biobanking and sample management
• Commitment to quality
• Configurable software
• Excellent support
• Responsive to customer needs
Mission

Dataworks streamlines sample management by providing high quality services and configurable, secure, and relevant software to the scientific community.
<table>
<thead>
<tr>
<th>Country</th>
<th>Institution</th>
<th>Installation Year</th>
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<tbody>
<tr>
<td>Botswana</td>
<td>Botswana-Baylor Children’s Clinical Center</td>
<td>2014</td>
</tr>
<tr>
<td>The Gambia</td>
<td>The Medical Research Council (MRC) Laboratories-Tulane</td>
<td>2011</td>
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<tr>
<td>Ghana</td>
<td>Noguchi Memorial Institute for Medical Research/NYU</td>
<td>2005</td>
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<tr>
<td>Kenya</td>
<td>International Center for Reproductive Health (ICRH)</td>
<td>2010</td>
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<tr>
<td>Kenya</td>
<td>The Kenya Medical Research Institute (KEMRI)</td>
<td>2009</td>
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<tr>
<td>Kenya</td>
<td>Kenya Research Group (2 Sites) University of Washington</td>
<td>2011</td>
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<tr>
<td>Kenya</td>
<td>Armed Forces Institute Research Institute of Medical Sciences</td>
<td>2006</td>
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<tr>
<td>Malawi</td>
<td>Karonga Prevention Study (Malawi College of Medicine)</td>
<td>2012</td>
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<tr>
<td>Mali</td>
<td>SEREFO (HIV/TB) Research and Training Center (NIH)</td>
<td>2009</td>
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<tr>
<td>Mali</td>
<td>University of Medicine USTT</td>
<td>2014</td>
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<tr>
<td>Mali</td>
<td>Tulane University Center/ University of Bamako</td>
<td>2011</td>
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<tr>
<td>Mali</td>
<td>NIH/University of Mali</td>
<td>2009</td>
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<td>Mozambique</td>
<td>Center for Infectious Disease Research in Beira/ MHRP</td>
<td>2010</td>
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<tr>
<td>Nigeria</td>
<td>University College Hospital</td>
<td>2014</td>
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<td>Nigeria</td>
<td>Institute of Human Virology (IHV)</td>
<td>2009</td>
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<tr>
<td>Nigeria</td>
<td>The Walter Reed Program--Nigeria (WRP-N)</td>
<td>2010</td>
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<tr>
<td>Rwanda</td>
<td>International Center for Reproductive Health (ICRH)</td>
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<tr>
<td>Senegal</td>
<td>University Cheikh Anta Diop/Tulane</td>
<td>2011</td>
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<td>South Africa</td>
<td>Desmond Tutu HIV Foundation</td>
<td>2011</td>
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<tr>
<td>South Africa</td>
<td>University of Cape Town (2 sites)</td>
<td>2001</td>
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<tr>
<td>Tanzania</td>
<td>Mbeya Research Programme</td>
<td>2006</td>
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<td>Uganda</td>
<td>Children’s Foundation-Uganda (University of Baylor)</td>
<td>2010</td>
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<td>Uganda</td>
<td>MU-UCSF Malaria Research Collaboration</td>
<td>2013</td>
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<td>Uganda</td>
<td>Uganda Virus Research Institute</td>
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<td>Uganda</td>
<td>University of Washington</td>
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<tr>
<td>Uganda</td>
<td>USAMC – AFRIMS HIV Vaccine Center</td>
<td>2006</td>
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<tr>
<td>Zimbabwe</td>
<td>University of Zimbabwe - UCSF Programme</td>
<td>2007</td>
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Open Source vs. Configurability?

• Open Source looks inexpensive at first but the costs of writing and maintaining code ends up being costly.

• Operating systems change constantly, adding to the cost of maintaining code in an Open Source.

• Open sourcing immediately breaks developer validation and causes confusion for who is responsible for correcting bugs – original developer or an in-house programmer?
Advantages of Configurability

• Lab personnel can make changes to screens, field and field requirements, and formats – saving time and money.

• Developer is responsible for validating on operating systems.

• Developer validates the delivered system. Configuration by lab personnel and IT does not break the validation. Configurability has already been validated.
In our DNA? What does that mean?

• Freezerworks was developed for 60 labs at its inception – Not one key lab, and then modified for others. Every lab is a key lab.

• Configurability is not Customization – This empowers the laboratory, because lab personnel make it their program. Users make changes and additions to fields, screens, formats.

• Configurability frees up IT resources, and builds collaboration between IT and the end user.

• Configurability features are dependent on permissions – Labs restrict those who can configure, and those who cannot.
Freezerworks is developed according to the FDA General Principles of Software Validation

Fully automated audit trail meets 21 CFR Part 11 requirements.

Track all data entry and update operations automatically

- Who made the change?
- What was changed? What was the old value?
- When was the change made?
- Reason for change (optional)
Freezerworks Unlimited

- Our Flagship Product
- Configurable
- Adaptable
- Version 6.0.02 released February 2014
- Enterprise
- Starts at $10,000
Major Benefits

- Configurable for multiple groups
- Batch entry & update features save time and increase productivity
- Biobanking features for shipping aliquots, billing for services
- Testing module turns Freezerworks into a full featured LIMS
- Web enable or integrate with other lab software with web services API
Major Features
Unlimited user-defined fields

Create alphanumeric, numeric, date, time, true/false, and text fields

Customize each field to utilize auto-incrementing ranges, default values, calculated values, and sample specific lists

Build relationships between fields for better data integrity and ease of use
Configure Sample Entry Screens

• Design screens with your institution’s unique branding

• Each group can have its own unique screens and designs
Samples, Aliquots, Sub-Aliquots

Track the lineage

- Sample information above
- Aliquot information below
- Sub-Aliquot for derivatives, maintaining history of each vial
Freezer Configuration

Freezers

- Configure Freezerworks to match your freezers, liquid nitrogen tanks, or any other storage unit
- Track available and occupied spaces within your freezers
- Managing freezers saves money on freezer purchase costs
Freezer Configuration

• Freezer sections within physical freezers

• Aliases allowed for labeling boxes, identifying specific racks

• Display and manage aliquots at box view
Explore Freezers

• Search for samples by the box

• Right click to get a menu of various actions to perform on selected aliquots
Labeling

- Configure multiple label formats
- Bar code on any field desired
- Add human readable information to your labels
- Default label formats for different specimen types/studies
Internet Accessibility

• Create web services with Simple Object Access Protocol (SOAP) API

• Freezerworks Remote Operation Search Tool (FROST) for web based searches

• Mobile app for searching and updating – open source
Check Out Features

- Check out inventory and track chain of custody
- Lock the Aliquot for modification
- Assign selected field values
- Hold or clear the freezer position
Shipping

- Create and track shipments
- Select Aliquots by any criteria desired
- Generate shipping manifests
- Record all shipment information
Move Samples

- Save freezer space
- Consolidate freezers and save storage costs with Move Samples
- Powerful and easy to use
- Drag and drop, click and move
Reports

- User friendly report writer
- Link to Crystal Reports with Open Database Connectivity (ODBC)
- Can link Excel via ODBC
- Include bar codes
System Security

- Permissions assigned at the user level
- Access to Freezers and Samples assigned at the Group level
- User authentication with LDAP
- Entry forms and List Views assigned to Groups
Audit Trail

- Automatic system generated
- All changes recorded and entries protected
- Tracks the entire data history of every sample and vial automatically
- Searchable
Testing Module

- Turn Freezerworks into a highly configurable LIMS
- Track tests and testing status
- Track chain of custody
- Print results reports
- Track productivity with report metrics
Billing Module

- Invoice for testing services, biorepository services or both
- Recover the costs associated with running a first class biobank and laboratory facility
Customer Care Program

Each Freezerworks software purchase includes a One-Year Customer Care Program with the following benefits:

- Free scheduled maintenance releases and software upgrades
- Technical support by telephone during regular business hours
- Access to emergency 24 hour support
- Technical support by email (response within 1 business day)
- Remote technical support via Online Meeting
- Full access to recorded training sessions and materials

A Freezerworks implementation analyst will be assigned to assist you with the configuration of Freezerworks to match your workflow.
Implementation

• Implementation Assistance
• Each implementation is tailored to meet your needs
• Customer Care support package
Questions

Contact Information
Website: www.freezerworks.com
Email: sales@freezerworks.com