

IBUC 2010

# Post-Collection Processing with Blaise in a Distributed Environment

Mary Laidlaw, Mike Rhoads  
and Jane Shepherd



# Post-Processing: Expanding Requirements

- Distributed sites
- High security with individualized access
- Sequencing and division of tasks
- Levels of review
- Automated documentation of data decisions
- Integration of hardcopy form data

# Post-Processing: Expanding Requirements

- Easy update of post-processing tool
- Ad hoc and predefined reporting
- Data file versioning and management
- Instrument level and case level processing

# The Solution Path ...

## Blaise Data Processing and Quality Assurance (BDPQA)



# BDPQA: Architecture (part 1)

- Workflow Manager
- Interactive application
- Set up tool
- User access controls tool

## BDPQA: Architecture (part 2)

- DEP, Manipula, Blaise Datalink, and Blaise Component Pack (BCP)
- Microsoft SQL Server 2005
- SQL Server triggers and stored procedures
- COTS for report generation, conversion to PDF, PDF viewing, and viewing audit trails

# BDPQA: Workflow Manager

- Loads newly collected data into site-specific databases
- Names and loads associated audit trails
- Runs checks and adds to decision tables at site level
- Loads cases and decisions closed out by site offices into central office database
- Runs checks and adds to decision tables at central office level

# BDPQA: User Interface

- Integration with Blaise through BCP
- Data update and data browsing with Blaise DEP
- Interaction with SQL Server database tables using insert triggers
- Two views – editor and supervisor

# BDPQA: Databases

- Microsoft SQL Server
- Separate databases for site office editing, central office editing, metadata
- Write access only by Blaise
- Additional tables outside of Blaise

# BDPQA: Highly Customizable

- Setup tool and INI files identify network locations, databases, data models, and sites
- Distinction between editors and verifiers
- Edit check exclusion
- Critical items, nondeliverable items
- Access to field audit trails
- Screen headings (instrument/form names, study)
- Internal security - IDs and roles

# BDPQA: Editor Level Data Processing

- Document reported issues in the system
- Review field interviewer comments
- Update data as necessary, enforcing rules
- Document all data updates/decisions
- Verify data decisions
- Browse/review data
- Run and review reports
- Release data to the central office

# BDPQA Editor View: Main Menu

DPQA DEMO Decision Log

**Editor**  
**Data Processing and Quality Assurance System**  
**Main Menu**  
**Sample Screener**

<input type="button" value="Pending Work"/>	<input type="button" value="Run Reports"/>
<input type="button" value="Browse Instrument"/>	<input type="button" value="Manage Sample"/>
<input type="button" value="Verify Work"/>	<input type="button" value="Editor Case Close Out"/>
<input type="button" value="Add Data Issue"/>	

# BDPQA Editor View: Pending Work

**Pending Work - Comments and Data Issues**

**Editor Pending Work Sample Screener**

DU ID AM4070-9	Question	Variable	Date Reported 7/22/2010	Source Data Issue	Decision ID 4	Replay Instrument
<input type="button" value="Clear Filter"/>			<input type="button" value="View Audit Trail"/>			

**Comment and Data Issue**

Comment/Data Issue Description: change last name to Bliss

Issue Added By: graves\_j

Question	Value	Text Value
Variable: StudyParticipantLastName	Source: Mertz	
Edited: Mertz		

**Decision**

Decision Category:

Rule:

Question:

Case Updated  Date Updated  Variable: StudyParticipantLastName

Decision Description:

Editor	Last Update	Comment/Issue Status	Last Status Update	<input type="button" value="Save"/>	<input type="button" value="Return to Main Menu"/>
	7/22/2010	In Queue			

Record   2 of 2

# BDPQA: Supervisor Data Processing

- Establish editing rules
- Review data decisions
- Code text responses
- Review frequencies and cross tabulations
- Finalize data and documentation for delivery

# Lessons Learned

- Time stamps
- Auxfields
- Field names
- Tags
- Edit checks
- Data models for form data

# BDPQA: Advantages

- Automatic versioning of data
- Storage and retrieval of audit trails
- Generation of a variety of reports
- Internal security for user and role identification at two levels
- Different data models at editor and supervisor levels
- Electronic or hardcopy decision logs