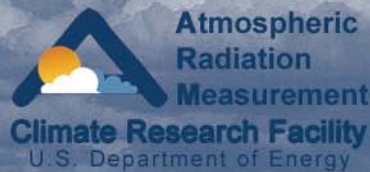


# ARM Climate Research Facility Operations Status System Upgrades & Enhancements Status

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# Overview

## ARM Science Team Meeting – March 2006

- Progress Report
- Demonstration
- Discussion?

# Background

Before we go on...

- Who is my Audience?
- Do I need to explain OSS' Purpose?

# Background

OSS Meeting, July 2005

Argonne National Laboratory

- ECO-00432
- Late 2004/Early 2005 Requirements Analysis
- Operations Managers, OSS Users Present
- Problems Reviewed & Solutions Offered
- Future Features/Modules Discussed
- Path Forward Outlined w/ Schedule
- Calibration Module Requirement Removed

# Status

- December 2005 Target
- Underestimated Effort
- Other Issues
  - Competing Priorities (AMF support)
  - Post Argonne Meeting Requirements Gathering
    - “Slots/Instruments” Discussion
    - Other Issues
  - Network Problems at TWPO (2 weeks)
- Found New Bugs
- So When?

# Work Description

## Bug Fixes

- Known
  - New System/Component didn't "baseline" event
- Discovered
  - State History Report Errors
    - Other changes drove solution
  - Minor Bugs
    - Cosmetic
    - No affect on State History

# Work Description

## Areas for Improvement

- Cumbersome Event Entry
- Site Navigation
- Need to Edit and Delete Events
- Better Support for working w/ “Components”
- Viewing Event Histories

# Work Description

## Areas for Improvement (continued)

- Integration with Site Ops DBs
  - SGP & NSA OMIS
  - TWP OMS
  - These would “feed” OSS
- “OSS Driver” Requirements
  - How “feed” occurs
  - In progress (started last fall)



# Work Description

## “Areas for Improvement” (continued)

- Documentation
  - User
  - Technical?
- Performance Issues

# Work Description

- Required Database Changes
  - Components Table (redesign)
  - Systems Table (enhanced)
  - Events Table (enhanced)
  - State Table (redesign)
  - Planning for Future
    - Enhancements
    - New Modules, e.g., Shipping

# Work Description

- Database Changes → Conversion Strategy
  - Can't lose anything from existing Database
  - Components and Attributes (old)
    - Two Tables
    - Flexible design to accommodate OMIS, OMS differences
    - Disadvantages to using this approach
  - Components w/ Attributes (new)
    - One table w/ previous related attributes added
    - More specific attributes

# Progress Report

- Known Bugs are Fixed
- Event Entry Improved 
  - Verification Step removed
  - Return to Entry Form on Completion
  - Editing enabled
  - Deleting enabled
  - Sacrifice real-time State History Updates (barely)
- Site Navigation Improved 
  - Redesign
  - Real Estate – Full Screen Width
  - Consistent Navigation Element Placement

# Progress Report

- New “Component” Model 
  - Components don't have to be assigned to a parent system (Spares, Shipped, Out for Repair)
  - Can change parent system assignment
  - May solve the “Slots/Instruments” debate
  - Provides utility to “fill in blanks” re: Inventory
  - Provides Framework for completed Inventory System
  - Basic, but capable Search Tools
- Event Histories 
  - For Sites
  - For Systems
  - For Components

# Progress Report

- Database Conversion 
  - Tools are in place
  - Process is automated but...
  - ... run manually w/ checks in between steps
  - Takes less than an hour
- Current DB will need to be off-line (1 day)
- Will happen shortly before release

# Progress Report – To Do

Before we can release...

- Finish Site/Facility Wide Event Entry
  - Edit/Delete Issues
- Basic Event Search Tool
- Documentation (On-line Help)
- ARM Release Issues (Change Platform)
- Test in Production Environment?

# Progress Report

What won't be in this release...

- Requested Double Event Entry Interface
  - Recent Improvements May Remove Need
- Complete Inventory Module
  - Movement - Inventory Location History
  - Next Release
- Advanced Search Tools
  - Need Feedback from Users
- Integration w/ Site Ops DBs



# Progress Report

- Metrics?
  - Next Release
- Data Dependent
  - Systems/Components w/ 1 “baseline” event
  - No State Changes = No (Meaningful) Metrics
  - Don't track those Systems and Components?

# Future Plans

- Complete Inventory Module
  - Track Movement
  - Location Histories
  - Ability to link Photos of Systems/Components
  - Automate Tracking?
- Shipping Module?
  - Automate Tracking?
- Integrate w/ Site Ops DBs

# Conclusion

- Questions?
- Sign-up for ECO
- On my USB Drive
  - This Presentation
  - Rough Draft of Ops DB Integration “Driver” Contract
  - Other information