To: Distribution

From: Stephen Smith, Technical Writer

Thru: Ernestine Bryant, STOrage and RETrieval (STORET), Project Manager (PjM), Solutions Delivery Center (SDC)

Subject: Minutes of STORET Change Control Board (CCB) Meeting

1.0   Purpose

A CCB Meeting was held on December 1, 2004 at the SDC. The purpose of the meeting was to review and address the status of current project activities, resolve project issues, and ensure that activities are within the scope of the Job Assignment (JA).

2.0   Attendees

Bryant, Ernestine - Project Manager
King, Robert - Job Assignment Manager (JAM)
Manning, Lee
Norris, Blythe
Smith, Stephen
Thadkamalla, Ganesh

3.0   Discussion Topics

The discussion covered the following topics:

- Action Items.
- Central Administration Module.
- Organization Preference and Default Replication Interface.
- Report Module.
- Central Warehouse.

3.1   Introduction

Attendees opened the meeting with a summary of project activities and a status of open action items. A Software Incident Report (SIR) was created for the Web Registration Application to change the total count on the status bar at the bottom of each form to show total record count instead of "?". The SIR Log (Attachment A) and User Support Log (Attachment B) are included as deliverables with these CCB Minutes.

3.2   Central Administration Module

The project team will continue enhancing and developing the reference table maintenance areas (see Attachment C).

Priorities for development were set as follows:

- Characteristic suite of tables (i.e., TSRCHAR, TSRCALT, TSRCPV, TSRCHTYP, TSRCTCA, TSRCHALS).

- Permitted Value (TSMPRMVL).

3.3   Organization Preference and Default Replication Interface

Error checking performed by the scripted language will be captured by the Organization Preference and Default interface.

Additional SIRs were created for future consideration:

- Provide ability to replicate individual Preference and Default area(s).

- Provide ability to save source Organization export in American Standard Code of Information Interchange (ASCII) format.

3.4   Report Module

The Reference Table Taxonomic Names report design was reviewed for validation (see Attachment D); the design was approved with minor modifications. When the Reference Table Taxonomic Names report is selected, the available characteristics will be filtered to only provide d_scr_type_cd of TAXA and VAR.

An additional report was requested that provides genus, species, and common name information for the selected characteristics. A design will be created and reviewed for further refinement.

In general, the associated children of a parent record need not have Binary Large Object (BLOB) retrieval. An initial review of a matrix (see Attachment E) showing where BLOBs may be associated on the preformatted reports was made to determine which attributes will have BLOB retrieval. The matrix will be updated with the results of the review and examined again at the next CCB.

Additional SIRs were created for future consideration:

- Create delimited exports of the preformatted reports. Specific reports are to be determined.

- Provide the ability to retrieve BLOBs or provide an indicator of when a BLOB is associated in the export reports. The scope of this SIR is to be determined.

3.5   Central Warehouse

Options were presented to capture statistics on Central Warehouse data requests (Attachment F). Option 1 was chosen because no selected filter values are currently tracked. A primary key REQUEST_ID and a sequence to populate it were added.

4.0   Action Item Summary

Action items and their status are as follows:

Number	Action Item	Assignment	Date Issued	Status	Date Completed
0001	Research VB.NET capabilities and provide response.	B. Norris	06/02/2004	Closed	09/08/2004
0002	Provide STORET team with copy of Dasler software.	B. King	06/02/2004	Closed	08/25/2004
0003	Provide BEACHES program with STORET architecture information (e.g., Entity Relationship Diagram, data definitions).	J. Wilson	06/28/2004	Closed	07/28/2004
0004	Run ETL software week of July 12th.	J.Wilson	06/28/2004	Closed	07/28/2004
0005	Provide copy of email discussing required changes to implement Uniform Resource Locator (URL) encoding for the Station Home Page.	B. Norris	06/14/2004	Closed	08/06/2004
0006	Send Report Module v2.0.3 deliverable.	S. Smith	07/28/2004	Closed	07/28/2004

Number	Action Item	Assignment	Date Issued	Status	Date Completed
0007	Include scripts to remove orphaned rows and nullify type_name column in TSRCHALS for next reference table upgrade.	L. Manning	07/28/2004	Closed	08/23/2004
0008	Investigate ITIS data acquisition and supplementary data processing.	L. Manning	07/28/2004	Open	
0009	Examine Native American Land (NAL) data for compliance to the Environmental Data Registry (EDR).	B. Norris	08/23/2004	Closed	09/08/2004
0010	Review structure of TSMNAICS table to see if it was expanded from its original source.	S. Smith	08/23/2004	Closed	09/08/2004
0011	Send Data Entry Module v2.0.1 deliverable.	S. Smith	09/08/2004	Closed	09/08/2004
0012	Prepare Entity Relationship Diagrams of the Central Warehouse and STORET Database for the National Conference.	B. Norris	10/8/2004	Closed	12/01/2004
0013	Prepare graphs showing results converted to target units for possible use at the National Conference.	S. Smith	10/08/2004	Closed	10/21/2004
0014	Email URL to access STORET Station Home Page and Extensible Markup Language (XML) stream to B. King.	B. Norris	12/01/2004	Open	
0015	Update BLOBs on preformatted reports matrix for review at next CCB.	S. Smith	12/01/2004	Open	

5.0   Next Meeting

The next meeting is to be determined.

6.0   Distribution

Name	Email
Bryant, Ernestine	
Christian, Kevin	Christian.Kevin@epamail.epa.gov
King, Robert	King.Robert@epamail.epa.gov

Name	Email
Manning, Lee	Manning.Lee@epamail.epa.gov
McElhinney, Cary	Mcelhinney.Cary@epa.gov
Szajgin, Tracey	
Wilson, Joseph	Wilson.Joe@epa.gov

7.0 Approval of Minutes

_____   _____

Robert E. King   Date
Job Assignment Manager

ATTACHMENT A

SIRs Since Last CCB

Software Incident Reports Since Last CCB - Period: October 20, 2004 to November 30, 2004			
Release Version	**Date Initiated**	**SIR #**	**Description**
C2.0.4	10 20 2004	1644	Currently, if only directional indicators are changed on screen, user always receives North West hemisphere; this is incorrect. Add direction indicators to the check that determines if latitude and longitude need to be evaluated for data retrieval.
C2.0.4	10 21 2004	1645	Apply date format mask to convert data to a four digit year. Make change to Extract, Transform, and Load (ETL), and Interface software. Note: many areas already have this mask. The impact assessment will identify the areas that will be changed.
C2.0.4	11 30 2004	1647	Modify the table storage parameters for the result fact tables as follows: - fa_regular_result (pctused 40 pctfree 60). - fa_biological_result (pctused 35 pctfree 65). - fa_habitat_result (pctused 40 pctfree 60).
C2.0.4	11 30 2004	1648	Change all positive station longitude values in the FA_STATION table to negative values except for Stations belonging to Organizations 21GUAM, 21GUBCH and 21AQ.
P	11 10 2004	1646	Change the Project Search as follows: remove case sensitivity, limit record retrieval to those that begin with search criteria. Use the Station Search in version Data Entry Module 2.0 as the model.
T2.0.1	11 30 2004	1649	Create a Main Menu to access reference table maintenance areas.

Legend for System Version:

System Letter is concatenated with Version Number. System Letter Key:

C = Central Warehouse, E = Station Home Page, P = Data Entry Module, R = Report Module, T = Central Administration, U* = Utilities

ATTACHMENT B

User Support Log

User Support Log - Period: October 20, 2004 to November 30, 2004			
Date Received	Application	Issue	Response
10/22/04	Report Module	Can you provide information about duplicate systematic names (Characteristic Aliases) seen in the Reference Table Characteristic Names report released with R2.0.4?	Minutes from a Change Control Board meeting (July 28, 2004) regarding duplicate rows that existed in the TSRCHALS table were reviewed. B. King would examine the latest reference table upgrade with L. Manning for rectification of the problem. The STORET development team also examined the latest reference table update DBFIX016 and determined that the data problem still exists.
10/25/04	Data Entry Module	Data entry application issued a message box with title "P20_BLOB" and message "Provider can not be found." Is it properly installed?	This message will be displayed when Oracle Provider for Object Linking and Embedding (OLE) Database (DB) is not installed or not functioning. Install/re-install "Oracle Provider for OLE DB" into the same Oracle home to resolve the problem.
10/29/04	Report Module	Can you enumerate some enhancements in STORET Reports since v 1.2?	A high-level summary of features since Report Module 1.2 including new preformatted reports, new export reports, new fields added to existing reports, other Report Module enhancements, and documentation changes was provided.
11/3/04	Data Entry Module	Are there definitions or descriptions for primary and secondary station types?	The current model does not include descriptions for valid station types. These definitions are not provided in the support documentation. Station types may have been originally borrowed from another Environmental Protection Agency or authoritative system. If the original source is known, then we can search for descriptions there. The original set of type codes may have been adopted from Legacy STORET.
11/04/04	N/A	Provide plotter sized prints of the Entity Relationship Diagrams for the Central Warehouse result areas and the STORET v2.0 Data Model.	Diagrams for the Regular Result, Biological Result, and Habitat Result areas of the Central Warehouse were provided in ~24 x 36 inch size. A laminated diagram of the STORET v2.0 Data Model was provided in ~42 x 42 inch size.

User Support Log - Period: October 20, 2004 to November 30, 2004			
Date Received	Application	Issue	Response
11/4/04	N/A	Provide description of how data was derived for graphs depicting values converted to target units versus unconverted values.	The following files were sent via email: - A screen shot of the Windows to My Environment (WME) Tallahassee area with Uniform Resource Locator (URL) and latitude longitude information pasted as text. - Graphs in Graphic Interchange Format (GIF) format showing converted and unconverted data. - An Excel workbook with downloaded data on 4 spreadsheets. - A step-by-step description of how the data was derived for the graphs and additional details regarding the spreadsheet contents.
11/10/04	Data Entry Module	Batch processing - user wants to know if it is possible to append results to multiple and independent Station Visits (different stations) and activities having the same name.	Currently, the batch routine does not allow the same Visit number or Activity ID to be entered multiple times in the same input file. However, the user can get around the multiple Visits with the same Visit number but different Station ID by repeating the Trip ID header before each Visit is created (an example was sent via email). For Activity IDs, the user will have to enter unique IDs and then go into the application and modify accordingly.

ATTACHMENT C

Reference Table Maintenance Areas

Table Name	General Name	Present in COOL:Gen or updated to v2.0	For Visual Basic Implementation
TSRANLEQ	Analytical Equipment	Y	Y
TSRANLPR	Analytical Procedure	Y	Y
TSRBIOPT	Bio Part	N	Y
TSRCHAR	Characteristic	Y	Y
TSRCHALS	Characteristic Alias	Y	Y
TSRCALT	Characteristic Alias Type	Y	Y
TSRCPV	Characteristic Permitted Value	Y	Y
TSRCHTYP	Characteristic Type	Y	Y
TSRCTCA	Characteristic Type Characteristic Assignment	Y	Y
TSRCITN	Citation	Y	Y
TSMERMSG	Error Message	N	Y
TSMESTRY	Estuary	N	Y
TSRFLDGR	Field Gear	Y	Y
TSMFHU	FIPS Hydrologic Unit	N	Y
TSMGEOUN	Geologic Unit	N	Y
TSMGEOPA	Geopolitical Area	N	Y
TSRLBRMK	Lab Remark	Y	Y
TSRLSPP	Lab Sample Prep Procedure	N	Y
TSMLTHUN	Lithologic Unit	N	Y
TSMMAD	Method and Datum	N	Y
TSMNAL	Native American Land	N	Y
TSMPRMVL	Permitted Value	Y	Y
TSMPROLE	Person Role	N	Y
TSMPSR	Project Station Role	N	Y
TSRMATRX	Sample Matrix	N	Y
TSMSIC	Standard Industrial Class	N	Y
TSMUOM	Unit of Measure	N	Y
TSMVSTC	Valid Station Type	N	Y

ATTACHMENT D

Reference Table Taxonomic Names Report Design

Reference Table Taxonomic Names

Report
Description:

This report provides information regarding the Taxonomic Names available in the Reference Tables as maintained through the Central Administration Module. Characteristic and Characteristic Alias information is included in the report. Taxonomic hierarchy is also provided.

Data Translations:
- Status field values of "A" will be translated to "Approved".
- Status field values of "S" will be translated to "Synonym".
- Values of "A" in Syn column will not be shown.
- Characteristic Type values of T, G, O, P, R will be translated to Taxa, General, Other, Physical, and Retired respectively.

Special Separators
- Horizontal line from margin to margin under column header.

Select Logic:

Select Options: Characteristics.

Sort Sequence: By ascending Characteristic Name.
- **Alias Information** - by ascending Alias Type, by ascending Alias Name/Code.
- **Hierarchy** - by descending Taxonomic Rank, by ascending Status (Approved then Synonyms).

Page Break: None.

Report Heading	Prompt Name	Oracle Name
RT5 Non-Taxon Characteristic Data Entry		TSRCHAR
Name, Display Name	Display Name	DISPLAY_NAME
Author Date	Author Date	AUTHOR_DATE
Status, Syn	Status	STATUS
UOM Type	UOM Type	UOM_TYPE
Characteristic Type	Characteristic Type	CHAR_TYPE_CODE
Result Screen	Result Screen	D_SCR_TYPE_CD
Procedure Required	Procedure Required	PROC_REQ_IND_CD
ITIS Serial Number	ITIS Taxon Serial Number	EXTRNL_SERIAL_NUM
Taxon Rank Code	Taxon Rank Code	TAXON_RANK_CODE
Taxon Rank Name, ITIS Rank	Taxon Rank Name	TAXON_RANK_NAME

Report Heading	Prompt Name	Oracle Name
Taxon Sort Code	Taxon Sort Code	TAXON_SORT_CODE
Parent TSN	Parent TSN	PARENT_TSN
True Name TSN	True Name TSN	TRUE_NAME_TSN
RT7 Characteristic Alias Data Entry		TSRCHALS
Alias Name	Alias Name	NAME
RT57 Characteristic Alias Type Maintenance List		TSRCALT
Alias Type	Alias Type	TYPE_NAME

EXAMPLE

Reference Table Taxonomic Names

June 18, 2002 15:37:20

Name   Quercus acerifolia   **Author Date**   (Palmer) Stoynoff & Hess

Status	Approved	**ITIS Serial Number**	507142
UOM Type	TAX	**Taxon Rank Code**	SPE
Characteristic Type	TAXA	**Taxon Rank Name**	Species
Result Screen	TAXA	**Taxon Sort Code**	22300002400002000000030000000600001
Procedure Required	N	**Parent TSN**	19276
		True Name TSN	

Alias Type	**Alias Name**
ITIS Taxon Serial Number	507142
Taxon Common Name	Mapleleaf oak

ITIS Rank	**Syn**	**Display Name**
Kingdom		Plantae
Subkingdom		Tracheobionta
Division		Magnoliophyta
Division	S	Angiospermae
Class		Magnoliopsida
Class	S	Dicotyledoneae
Class	S	Magnoliatae
Subclass		Hamamelidae
Order		Fagales
Family		Fagaceae
Genus		Quercus
Species		Quercus acerifolia
Species	S	Quercus shumardii var. acerifolia

ATTACHMENT E

Binary Large Objects on Preformatted Reports Matrix

Report	Project	Station	Station Visit	Activity	Result	Citation	Operating Period
Organization Summary							
Personnel Summary							
Program Summary	X						
Cooperating Organization Summary							
Field/Lab Analytical Procedures and Equipment Summary							
Field/Lab Analytical Procedures and Equipment Detail						X	
Lab Sample Preparation Procedures						X	
Characteristic Group Summary							
Characteristic Group Details						X	
Sample Collection/Creation Procedures						X	
Sample Collection/Creation Gear/Equipment Configurations							
Sample Preservation, Transport and Storage Profiles							
Laboratories							
Citations						X	
External Station ID Schemes							
Project Summary	X	X					
Project Details	X	X	X	X		X	X
Station Summary	X	X					
Station Details	X	X					
Trip Summary	X	X	X	X			
Trip Detail	X	X	X	X			
Activity Detail		X	X	X			
Result Detail	X	X	X	X	X		
Result Inventory Summary							
Result Inventory Summary by Station		X					
Automated Data Logger Summary	X	X					X
Automated Data Logger Detail	X	X					X
Automated Data Logger Result Inventory Summary							
Automated Data Logger Result Inventory Summary by Station		X					
Unassigned Activities to Projects		X		X			
Reference Table Chemical Names							

Report	Project	Station	Station Visit	Activity	Result	Citation	Operating Period
Reference Table Chemical Names without Parameter Codes							
Reference Table Permitted Values							
Reference Table Permitted Value Characteristics							

ATTACHMENT F

Central Warehouse Statistics Capture Options

Table designs for SIR 1631

Option 1
Table: DW_DATA_REQUESTS
```
REQUEST_TYPE                 CHAR(3)
DATETIME                     DATE
FILESIZE_KB                  NUMBER
F_STATE                      CHAR(1)
F_COUNTY                     CHAR(1)
F_LATLONG                    CHAR(1)
F_HUC                        CHAR(1)
F_STATIONTYPE                CHAR(1)
F_CHARACTERISTIC             CHAR(1)
F_ORGANIZATION               CHAR(1)
F_STATION                    CHAR(1)
F_ACT_STARTDATE              CHAR(1)
F_ACT_MEDIUM                 CHAR(1)
F_PROJECT                    CHAR(1)
F_ACT_INTENT                 CHAR(1)
F_COMMUNITY_SAMPLED          CHAR(1)
```
Note: A default of '0' is set for all filter columns.

Option 2
Table: DW_DATA_REQUESTS
```
REQUEST_ID                   NUMBER (Primary Key)
REQUEST_TYPE                 CHAR(3)
DATETIME                     DATE
FILESIZE_KB                  NUMBER
```
Each data request will have an entry into this table.

Table: DW_DATA_FILTERS
```
REQUEST_ID                   NUMBER (Foreign Key)
FILTER                       VARCHAR2(15)
```
This table will have an entry for each filter used within a data request.

Sequence: Data_Request_seq.
Note: This sequence will be used to generate unique serial numbers for DW_DATA_REQUESTS.REQUEST_ID.

Option 2 is a normalized data model. This will eliminate redundancy and inconsistency. It may not save space when compared to Option 1 as the filter name is spelled out in Option 2 against single byte flags in Option 1. Option 1 is ideal for extracting data for use with spreadsheet software but the data model needs to be changed every time a change in filters occur in the Data Warehouse application.