To: Distribution

From: Stephen Smith, Technical Writer

Thru: Teresa Sutch, 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 September 28, 2005 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

Christian, Kevin - Job Assignment Manager
Smith, Stephen
Sutch, Teresa - Project Manager

3.0 Discussion Topics

- Action Items.
- Deliverable Status.
- Proposed and Pending Taks.

3.1 Introduction

Attendees opened the meeting with a summary of project activities and a status of open action items. The Software Incident Report (SIR) Log (Attachment A) and User Support Log (Attachment B) are included as deliverables with these CCB Minutes.

3.2 Deliverable Status

The change request received Monday for improved flow of Characteristic data association and update will be delivered this week.

The contents.doc and contents.txt files describing the contents of the STORET Deliverables on Compact Disk were reviewed. The Word (i.e., doc) file was formatted for printing, while the Text (i.e., txt) file provided a concise one screen view when displayed without word wrap. The format of the contents.txt was changed from a columnar format to grouped rows to further facilitate printing. The three CD set will be delivered on Thursday, September 29, 2005.

STORETINFO data on change requests and requirements pertaining to STORET products will be delivered on Friday, September 30, 2005.

Entity Relationship Diagrams (ERDs) for the STORET and Central Warehouse data models will be included on the three CD set as Oracle Designer dump files.

3.3 Proposed and Pending Tasks

The following tasks were established for October 1, 2005 and beyond:

- Create Portable Document Format (PDF) files of the STORET and Central Warehouse ERDs.
- Complete Development Environment documentation.
- Revise the STORET Installation Guide to target Oracle 9i as the primary database version.
- Create an implementation plan for Characteristic Inventory data retrieval in the Central Warehouse.
- Create documentation that maps columns from the STORET tables to the Central Warehouse downloads.
- Provide documentation on permitted values defined in the COOL:Gen model.
- Create sample Extensible Markup Language (XML) output for proof of concept in support of Environmental Sampling, Analysis, and Results (ESAR) data exchange. K. Christian will send material demonstrative of the sample output content.
- There was an interest in providing additional Quality Assurance/Quality Control capabilities to the user community. K. Christian will make inquiries to the user community to develop and prioritize needs.

- The SDC noted some open User Support requests that were currently under research and investigation.

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 Extract, Transform, and Load (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
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 Integrated Taxonomic Information System (ITIS) data acquisition and supplementary data processing.	L. Manning	07/28/2004	Closed	01/12/2005
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

Number	Action Item	Assignment	Date Issued	Status	Date Completed
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	Closed	12/02/2004
0015	Update BLOBs on preformatted reports matrix for review at next CCB.	S. Smith	12/01/2004	Closed	12/16/2004
0016	Aggregate pertinent Reference Table SIRs for review and disposition.	S. Smith	01/12/2005	Closed	03/03/2005
0017	Schedule ITIS data load meeting.	E. Bryant	01/12/2005	Closed	02/16/2005
0018	Provide Practical Extraction and Report Language (PERL) and Statistical Analysis System (SAS) programs supporting ITIS data load to SDC.	L. Manning	01/12/2005	Closed	02/16/2005
0019	Add a comment to the ALL_TAB_COMMENTS view identifying the full name of each STORET and STORET1 table.	K. Christian	02/16/2005	Closed	05/04/2005
0020	Provide L. Manning a report of duplicate Display Names and Taxon Serial Numbers found in ITIS data.	G. Thadkamalla	03/23/2005	Closed	04/07/2005
0021	Send duplicate Taxon Serial Numbers found in data during development to L. Manning when duplicates are identified as Approved.	G. Thadkamalla	04/07/2005	Closed	04/21/2005
0022	Send duplicate display names to L. Manning when duplicates are within the same hierarchical branch.	G. Thadkamalla	04/07/2005	Closed	04/26/2005
0023	Provide rules and conditions for ITIS comment information extraction.	L. Manning	04/07/2005	Closed	04/26/2005
0024	Provide Report Module User Guide with Document/Graphic retrieval description.	S. Smith	04/21/2005	Closed	04/22/2005
0025	Provide list of display names truncated by the Taxonomy Update Utility.	G. Thadkamalla	05/17/2005	Closed	05/17/2005
0026	Check on availability of DBMS_JOB package in production environment.	K. Christian	07/13/2005	Closed	07/19/2005
0027	Send latest TSRUOM to SDC development team.	K. Christian	08/16/2005	Closed	08/23/2005
0028	Send Source file for STORET v2.0 Installation Instructions.	E. Bryant	08/30/2005	Closed	08/30/2005

Number	Action Item	Assignment	Date Issued	Status	Date Completed
0029	Send script(s) that modify TSRUOM for unit conversion.	S. Smith	08/30/2005	Closed	08/31/2005
0030	Send material for Extensible Markup Language (XML) sample output.	K. Christian	09/28/2005	Open	

5.0 Next Meeting

The next meeting was scheduled for October 11, 2005.

6.0 Distribution

Name	Email
Christian, Kevin	Christian.Kevin@epamail.epa.gov
McElhinney, Cary	Mcelhinney.Cary@epa.gov
Sutch, Teresa	
Szajgin, Tracey	
Wilson, Joseph	Wilson.Joe@epamail.epa.gov

7.0 Approval of Minutes

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Kevin Christian Date
Job Assignment Manager

ATTACHMENT A

Software Incident Report Log

Software Incident Reports Since Last CCB - Period: 08/30/2005 - 09/27/2005			
System Version	**Date Initiated**	**SIR Number**	**Description**
			No SIRs were generated during the reporting period.

Legend for System Version:
System Letter is concatenated with Version Number.

ATTACHMENT B

User Support Log

User Support Log - Period: 08/30/2005 - 09/27/2005			
Date Received	**System Version**	**Issue**	**Response**
9/1/05	P2.0	1. Could you please give me the definition of "Light, transmissivity" and tell me how it is measured? 2. In the list of Depth Characteristics, what is meant by "ported" and "non-ported?" 3. For "Chlorophyll a (probe relative fluorescence)," what instrument measures this, and what are acceptable units?	1. Could you please give me the definition of "Light, transmissivity" and tell me how it is measured? Definition: The ratio of the directly transmitted light after passing through one unit of a participating medium (e.g., water, atmosphere) to the amount of light that would have passed the same distance through a vacuum. It is the amount of light that remains after the absorption coefficient and the scattering coefficient (together the extinction coefficient) are accounted for. Measurement: I believe this measurement is considered dimensionless, and because it is a ratio, a simple percent (i.e., %) might be appropriate. I have seen studies with Light transmissivity measured in percent. 2. In the list of Depth Characteristics, what is meant by "ported" and "non-ported?" I got a call back from a data logger authority that felt the ported/non-ported term is equivalent to vented/non-vented. If I assume this is true, what is the difference? Bottom line, vented probes automatically compensate for barometric pressure; non-vented required a separate barometric pressure calculation in conjunction with the probe value to obtain an accurate reading. These types of probes (vented and non-vented) usually employ a pressure transducer with a diaphragm-type mechanism, and are sensitive to barometric pressure changes. There is more on why one probe may be preferred over the other, but I think this answers the question. 3. For "Chlorophyll a (probe relative fluorescence)," what instrument measures this, and what are acceptable units? What Instrument: The simple answer is a fluorometer. This device may be used in situ for determination of chlorophyll-a by measuring the fluorescence due to the pigments. There are many makers employing various techniques of lamps and/or fiber optics. There are several units of measure which are applicable. I believe parts per X (e.g., ppm, ppb) and mass by volume (e.g., mg/m3, ug/L) are commonly applied units; but this may vary with medium, equipment, procedures, etc.

User Support Log - Period: 08/30/2005 - 09/27/2005			
Date Received	**System Version**	**Issue**	**Response**
9/1/05	P2.0	User getting errors that seem character set related when trying to import DBFIX020.	The import log provided shows that character set conversion is occurring. AL32UTF8 uses a multibyte character encoding scheme. For example, “ä” is single byte character in WE8ISO8859P1, but it is a multibyte character in AL32UTF8. The special characters in the TSRCHAR.AUTHOR_DATE field are causing the number of bytes of the string to exceed the allotted size, and is raising an oracle error 'ORA-01401: inserted value too large for column'. The default is byte semantics. Using character semantics as the default can solve this problem. Oracle9i Database provides the ability to set the default character semantics on either the session or instance level using the NLS_LENGTH_SEMANTICS parameter. Set the databases initialization parameter "NLS_LENGTH_SEMANTICS=CHAR". Restart the instance. Drop and recreate the table and import the data. 1. Export the schema. 2. Issue an ALTER SYSTEM SET NLS_LENGTH_SEMANTICS=CHAR SCOPE=BOTH command on the target database. 3. Stop and restart the instance so that the parameter change takes effect. 4. Drop the original schema. 5. Recreate the original schema and its tables (you can use show=Y import option to get the CREATE TABLE statements). Columns in the recreated tables will use character semantics, because that is now the default. 6. Import the schema into the target database using the IGNORE=Y import option. Note: This process applies only to schemas composed entirely of tables. If the schema includes stored PL/SQL code, you will need to recompile all that code to use character semantics. If the schema includes object types, one should pre-create those types in step 5. Be sure to run a test conversion before attempting to convert a production schema. More information is on the Oracle site: http://www.oracle.com/technology/oramag/oracle/03-mar/o23sql.html import log ---------- import done in WE8MSWIN1252 character set and UTF8 NCHAR character set import server uses AL32UTF8 character set (possible charset conversion) export client uses WE8ISO8859P1 character set (possible charset conversion) export server uses WE8ISO8859P1 NCHAR character set (possible ncharset conversion)

User Support Log - Period: 08/30/2005 - 09/27/2005			
Date Received	**System Version**	**Issue**	**Response**
9/2/05	P2.0	Impact Report of data modified due to Version Migration: Are there other new fields that have been implemented in version 2.0 that have the requirement that they cannot be null and that are also being populated via a similar default action mechanism when either data are migrated from an earlier version of the software and/or when the agency that is entering the data chooses not to make use of the functionality afforded by use of the field. The priority of this request can be considered "Long Term Research".	Under investigation.

User Support Log - Period: 08/30/2005 - 09/27/2005			
Date Received	**System Version**	**Issue**	**Response**
9/12/05	P2.0	Review the Structured Query Language (SQL) used to query a station which is the parent of Wells. Help determine how to aggregate the information by Well and the Well's corresponding data.	The additions to the query below should add some Well data to the output for sorting, and provide Result information aggregated for each Well. I am assuming Actual Activity Location points have been assigned to the Well Heads. Perhaps the user was not making the join between TSMWELL and TSMALP? Without this additional join, duplicates and non-Well related points (e.g., End of Pipe) could be introduced. I may not completely understand what the user wants to achieve in the output, so I apologize if this does not target the problem. Note: The user's query does not target Portable Data Logger, Automated Data Logger, or Biological Taxon Abundance results. SELECT ... tsmwell.id_number, tsmwell.name, ... FROM tsmwell, ... WHERE ... and tsmstatn.tsmstatn_is_number = tsmwell.tsmstatn_is_number and tsmstatn.tsmstatn_org_id = tsmwell.tsmstatn_org_id and tsmwell.tsmwell_is_number = tsmalp.tsmwell_is_number and tsmwell.tsmwell_org_id = tsmalp.tsmwell_org_id ORDER BY "STORET1"."TSMSTATN"."NAME" ASC, tsmwell.id_number, ... Follow up: 09/13/2005 As per phone conversation, I understood that other non-Well Results were desired in addition to Well data aggregated by Well, and in a single query. The following modifications to the select statement should provide that information in a non-union statement. I also added the tsmalp.type_code for visibility in reviewing the data. The same note still applies: user's query does not target Portable Data Logger, Automated Data Logger, or Biological Taxon Abundance results. Let me know if this satisfies the user's need. SELECT ... tsmwell.id_number, tsmalp.type_code, ... FROM tsmwell, ... WHERE ... and tsmstatn.tsmstatn_is_number = tsmalp.tsmstatn0is_number and tsmstatn.tsmstatn_org_id = tsmalp.tsmstatn0org_id and tsmwell.tsmwell_is_number(+) = tsmalp.tsmwell_is_number and tsmwell.tsmwell_org_id(+) = tsmalp.tsmwell_org_id ORDER BY "STORET1"."TSMSTATN"."NAME" ASC, tsmwell.id_number,...

User Support Log - Period: 08/30/2005 - 09/27/2005			
Date Received	**System Version**	**Issue**	**Response**
9/15/05	P2.0	User noted differences between SIM and STORET Batch loading of Actual Activity Location, specifically when associated with Created from Sample Activities.	This has been examined from Data Entry Module (DEM) direct and DEM batch standpoints and I do not see any serious additional detrimental effects from the "varying" storage methodologies of Station Location Points for the Activity. For Created from Sample Activities as seen in the sample screen shot, data retrieval using the inherited Station Location Points of the parent Activity (e.g., WELL HEAD) may be achieved by leveraging the recursive relationship of the tsrfdact1is_number and tsrfdact1org_id keys in TSRFDACT. These recursive keys establish the parent-child relationship for Created from Sample Activities. Any Station Location Point assignments to a Created from Sample Activity should probably be ignored for data retrieval, and let the recursive relationship stand as the tie back to the parent's Actual Activity Location.
9/15/05	C2.0.4	When we tried to load data into Stormoda on Shire, a few thousand STORETW.FA_BIOLOGICAL_RESULT records did not make it. Fields were too long for the tables. This is because we are going to characterset utf8 on our databases, and binary numbers are being converted to characters. We have developed a work around, and that involves redefining tables. We can do this every time we do an import for you (use the work around), or perhaps you would consider changing your database layout? Since these are all storetw changes, they will not effect your processing of others input.	Changing the ETL scripts to accommodate the 'CHAR' keyword in datatype declaration is an option. The workaround at Research Triangle Park (RTP), (running the script provided by D. Blake just after import of the table structure but not data) will be a maintenance issue, or the script should be generated every time. If they forget to apply the script, the import of data should be redone, and would require more time. The lowest impact solution is either to set NLS_LENGTH_SEMANTICS to 'CHAR' in the ETL instance init.ora file, or edit the ETL scripts to set session level NLS_LENGTH_SEMANTICS to 'CHAR' right after the connect statements (alter session set nls_length_semantics='CHAR';). Either of these will set the default character semantics to 'CHAR', and the tables created and exported will have the 'CHAR' keyword in Varchar2 or Char datatype definitions. Example: 1) alter session set nls_length_semantics='CHAR'; 2) create table temp_table (a1 varchar2(10), n1 number(12), b1 char(12), c1 varchar2(25)); 3) Table definition as stored in the export dmp file. "CREATE TABLE "TEMP_TABLE" ("A1" VARCHAR2(10 CHAR), "N1" NUMBER(12, 0), "B1"""" CHAR(12 CHAR), "C1" VARCHAR2(25 CHAR)) PCTFREE 10 PCTUSED 40 INITRANS 1 M""AXTRANS 255 STORAGE(INITIAL 65536 FREELISTS 1 FREELIST GROUPS 1) TABLESPACE"" "STORETDATA" NOLOGGING NOCOMPRESS"
9/19/05	T2.0.1	User getting debug screen in application.	Problem not identified as whether occurring during installation or during use. Both possibilities exercised during research. Problem is likely an incorrect installation, or .NET Framework corruption. Either condition would require a reinstall. Additionally, the test machine used for the Reference Table Module release was updated with MS recommended and optional upgrades, incrementally applied with subsequent testing of the installation and application operation. There were no problems. User reported that the installation had been attempted on a network drive rather than on a local drive. The problem has been resolved.

User Support Log - Period: 08/30/2005 - 09/27/2005			
Date Received	**System Version**	**Issue**	**Response**
9/21/05	X2.0.3	Provide a brief description of the STORET Web Registration Application.	The STORET Web Registration Application uses of a series of Web forms that allow data to flow into a central copy of STORET from data generators. This allows the data generators to create, update, and manage (e.g., register) lists of monitoring program elements which are necessary to exist in STORET prior to any successful monitoring data entry. The STORET Web Registration Application was compiled using Oracle Developer Suite 10g for deployment on an Oracle Application Server 10g (version 9.0.4.0.0). The application runs in a Web browser through the Oracle Jinitiator and accesses a central server copy of the STORET 2.0 database.
9/22/05	R2.0.5	User receiving error when running Report Module 2.0.5 on AIX box. Client/ Server Configuration (AIX Oracle - new Server: PERCHERON). Troubleshooting: 1) RUN STORET Report Module Restoration Utility 2.0.1 2) RUN STORET Report Module 2.0.6 - September 16, 2005 STORET Reports v2.0 works when logging into all other instances of "storet database" (i.e., local, NT Server).	Under investigation.
9/27/05	C2.0.4	Support STORET Warehouse and reporting for Katrina task. Attend meetings, answer STORET Warehouse questions, and assist with deployment issues.	Attended the meetings, answered STORET Warehouse questions, and assisted with deployment issues.

Legend for System Version:
System Letter is concatenated with Version Number. System Letter Key:
C = Central Warehouse, P = Data Entry Module, R = Report Module, T = Reference Table Module, X = Web Registration