



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 February 16, 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

Bryant, Ernestine - Project Manager
Christian, Kevin
Manning, Lee
Norris, Blythe
Szajgin, Tracey - Program Manager
Thadkamalla, Ganesh

3.0 Discussion Topics

The discussion covered the following topics:

- C Action Items.
- C STORET Taxonomy Update Process.
- C Reference Tables.

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.

K. Christian will be taking over the role as Job Assignment Manager (JAM).

K. Christian requested documentation on all hard-coded references in the data entry application for future reference.

3.2 Reference Tables

The Characteristic Type Assignment design was reviewed as a result of adding a new Biological subcategory "Condition" to the table. A decision was made to make the read only Subcategory field an enter-able drop down list.

Design options for the Permitted Value reference table implementation were discussed (Attachment C). Option 1 was chosen with the following additional comments:

- C Show all Category_Type_Name, Category_Type_Name_S, and Category_Type_Name_M rows in maintenance list.
- C Change "Table Details" references to "Details".
- C Investigate "hover" capabilities on Maintenance List and Details dialog box.
- C Add a comment to the ALL_TAB_COMMENTS view identifying the full name of each STORET and STORET1 table. Include this information as a new column on the Multiple Table Selection List.
- C Do not implement the Activity Category Permitted Value dialog box since this action is always performed.

A beta test of the reference tables application is scheduled for March 2, 2005.

3.3 STORET Taxonomy Update Process

Process flow diagrams for the STORET Taxonomy Update Process were presented for review (Attachment D). The flow diagrams included the processes performed by the United State Department of Agriculture (USDA), Environmental Protection Agency (EPA), and Science

Applications International Corporation (SAIC) in accomplishing the update of STORET Taxonomy. Upon review it was emphasized that the Display_Name should be made unique in the TSRCHAR table. A proposed process flow that uses public access of the Integrated Taxonomic Information System (ITIS) was also presented (Attachment E). The following are stated as part of this process:

- C No duplication of Display_Name in Actual and Synonym taxonomy is allowed. An option is to append the Class name or Kingdom name to make the duplicates distinct.
- C Check for duplicate Display_Name in the complete TSRCHAR table.
- C Assume the rank assignment order in the ITIS hierarchy is correct.
- C Taxon_Sort_Code will have each of the ranks unique within its parent except Division/Phylum numbers which are distinct across all Kingdoms.
- C Use ranks that have taxonomic data associated in ITIS.
- C Search_Name should be modified only if the Display_Name is changed. If possible, preserve the contents in the brackets from the existing Search_Name data.
- C Use comment information to append Display_Name with (Part) or (Archaic) for Synonyms.

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 12 th .	J. Wilson	06/28/2004	Closed	07/28/2004

Number	Action Item	Assignment	Date Issued	Status	Date Completed
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
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	Open	
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

Number	Action Item	Assignment	Date Issued	Status	Date Completed
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	Open	

5.0 Next Meeting

The next meeting was scheduled for March 2, 2005 at the SDC.

6.0 Distribution

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

Date

ATTACHMENT A

SIRs Since Last CCB

Software Incident Reports Since Last CCB - Period: 01/11/2005 - 02/15/2005			
System Version	Date Initiated	SIR #	Description
C2.0.4	01 12 2005	1676	Implement EPA provided script for handling Field Set concatenation in Extract, Transform, and Load (ETL) into current ETL. The EPA modified software will be supplied to the SDC development staff.
C2.0.4	01 12 2005	1677	Implement EPA provided script for replacing return character with paragraph marker in ETL. The tables and attributes are identified in the EPA provided script.
P	01 12 2005	1678	Disallow hard returns from being entered through the Data Entry Module.
P	01 25 2005	1680	Incorporate comment_text on FA5 Composite from Sample Data Entry into the edit check update logic. On FA5 Composite from Sample, comment_text has been omitted from the edit checks. If comment_text is the only field that has been changed, it by-passes the update logic. On windows FA2 Sample Data Entry, FA3 Field Measurement/Observation Data Entry, and FA22 Sample from Sample Data Entry, comment_text is included and functions properly. This would require a partial regeneration of the COOL:Gen application.

Software Incident Reports Since Last CCB - Period: 01/11/2005 - 02/15/2005			
System Version	Date Initiated	SIR #	Description
P	02 03 2005	1681	<p>Problem: Data Entry Module - There are no available Primary or Secondary Class Descriptor choices for Biological, Single Taxon Frequency Classes. Choices should include "Lifestage (choice list)" and "Sex (choice list)". Problem seen in reference table upgrade 2.0.04 released January 7, 2005; but may have been introduced in earlier release. After researching the issue, there are two remediation actions:</p> <ul style="list-style-type: none"> - Modify the code in COOL:Gen: The change would define the selection criteria for populating the Primary or Secondary Class Descriptor double-blivet lists as permitted value characteristics that have a category/subcategory of BIOLOGICAL/PHYSICAL MEASUREMENTS. Any future additions to the double-blivet lists would be performed as reference table application characteristic and category/subcategory entries/associations matching this criteria. - Add two rows to the TSRCTCA table: Adding TSRCTCA entries with a category/subcategory of BIOLOGICAL/CONDITION associated to the "Lifestage (choice list)" and "Sex (choice list)" characteristics will populate the double-blivet lists with these characteristics. Any future additions to the double-blivet lists would be performed as a manual row insert into the TSRCTCA table. <p>Existing data is not impacted. Batch is not impacted. SIM should be examined to determine if TSRCTCA and/or TSRCHTYP are involved in evaluating valid values for Biological, Single Taxon Frequency Class, Primary or Secondary Class Descriptors.</p>
R2.0.5	01 12 2005	1675	<p>Create a report that provides Reference Table Physical Characteristic information.</p> <p>01/12/2005 - CCB: Design validated. Add "EPA " to the beginning of Characteristic Type "SYSTEMATIC NAME". For consistency, make the change in the:</p> <ul style="list-style-type: none"> - Chemical Names printed and export reports. - Chemical Names without Parameter Codes printed and export reports.

Software Incident Reports Since Last CCB - Period: 01/11/2005 - 02/15/2005			
System Version	Date Initiated	SIR #	Description
R2.0.5	01 12 2005	1679	<p>Create a version of the Reference Table Physical Characteristics report that suppresses STORET Parameter Codes.</p> <p>01/12/2005: Add "EPA " to the beginning of Characteristic Type "SYSTEMATIC NAME". For consistency, make the change in the:</p> <ul style="list-style-type: none"> - Chemical Names printed and export reports. - Chemical Names without Parameter Codes printed and export reports. <p>(see SIR 1675 for same change)</p>
R2.0.5	02 04 2005	1682	<p>Chemical Names without Parameter Codes report is not showing characteristics when the only associated alias(es) is of alias type STORET PARM CODE.</p> <p>Printed Report: Changed SQL; used imbedded format function. Export Report: Changed SQL; used database function.</p>

Legend for System Version:

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

C = Central Warehouse, P = Data Entry Module, R = Report Module

ATTACHMENT B

User Support Log

User Support Log - Period: 01/11/2005 - 02/15/2005			
Date Received	System Version	Issue	Response
1/13/05	R2.0.4	<p>User reported error after upgrading to STORET RPT v2.0.4. Unable to generate reports using preview or print.</p> <p>Database OS and version VABS, Oracle v8.1.7.4, Security Patch 68.</p> <p>01/18/2005 - Close issue. Problem due to server configuration error.</p>	<p>01/13/2005 - Requested additional information:</p> <ul style="list-style-type: none"> - Confirmation of functionality before upgrade with prior version. - Any other changes (e.g., changes to database, server, runtimes) that occurred around time of the upgrade.
1/25/05	P2.0	<p>FA5 Composite from Sample Data Entry -Change Comments field only and press Accept, the change is not taken.</p>	<p>The following email was sent:</p> <p>This is indeed a bug. On FA5, comment_text has been omitted from the edit checks. If comment_text is the only thing that has been changed, the update logic is bypassed. On the other three field activity data entry windows, comment_text is included and functions properly.</p>

Legend for System Version:

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

P = Data Entry Module, R = Report Module

ATTACHMENT C

Reference Table Permitted Value Design

TSMPRMVL

Business Rules:

- C Table_Name/Field_Name/Field_Value combination must be unique.
- C Sequence_Number must be unique for a given Table_Name/Field_Name/Field_Value combination.
- C On insert, sequence_number defaults to the next available for that grouping.
- C If user changes sequence number (on insert or update) to one that is already used, then automatically adjust/re-sequence the list accordingly.
- C On insert, Table_Name and Field_Name are selected from the existing list. New Table_Names/Field_Names are not allowed.
- C On update, Table_Name and Field_Name are disabled.
- C A given field_name/value combination can be applied to multiple table_names (e.g., COMMUNITY_NAME applies to TSRCHGRP and TSRFDOACT).
- C The TSRFDOACT table_name can have multiple sets of common field names: Field_Name "Category_Type_Name" includes all Activity Categories; Field_Name "Category_Type_Name_S" includes values to be displayed on the FA2 Sample Data Entry window; Field_Name "Category_Type_Name_M" includes values to be displayed on the FA3 Field Measurement/Observation window.
- C On insert, if Field_Name is "Category_Type_Name", then see if a companion record for _M or _S category should be added. Do not allow both an _M and _S assignment to a given value.
- C Prompt when a "companion" table(s) exists for which insert/update applies. On update of an existing value, if a "companion" table(s) is found, then include some way to view ALL field values for that companion Table_Name/Field_Name before selection.
- C **On "companion" table listing, include a system-derived column that gives a description/full name of the table (e.g., QC Sample Default Profile for TSRFQSDP).
- C Include in help a list of data entry screens from which these permitted values are used (use existing report from Report Module).

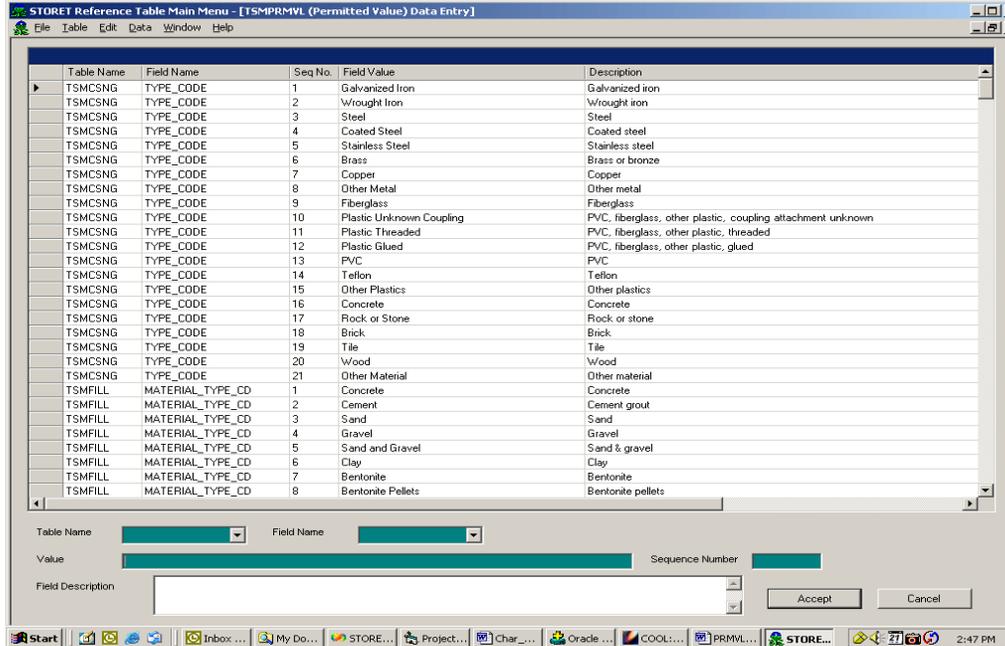
** Kevin to provide this in a script to add a comment to each table in one of the following Oracle views: USER_TAB_COMMENTS, USER_COL_COMMENTS, ALL_COL_COMMENTS, ALL_TAB_COMMENTS.

Menu (updated):



Option 1 - TSMPRMVL (Permitted Value) Data Entry:

Idea: All “companion” table activities handled via dialog boxes (like current application).



On highlighting a non-Category_Type_Name record (for update or delete), if “companions” exist (select none, one, some, or all from list):

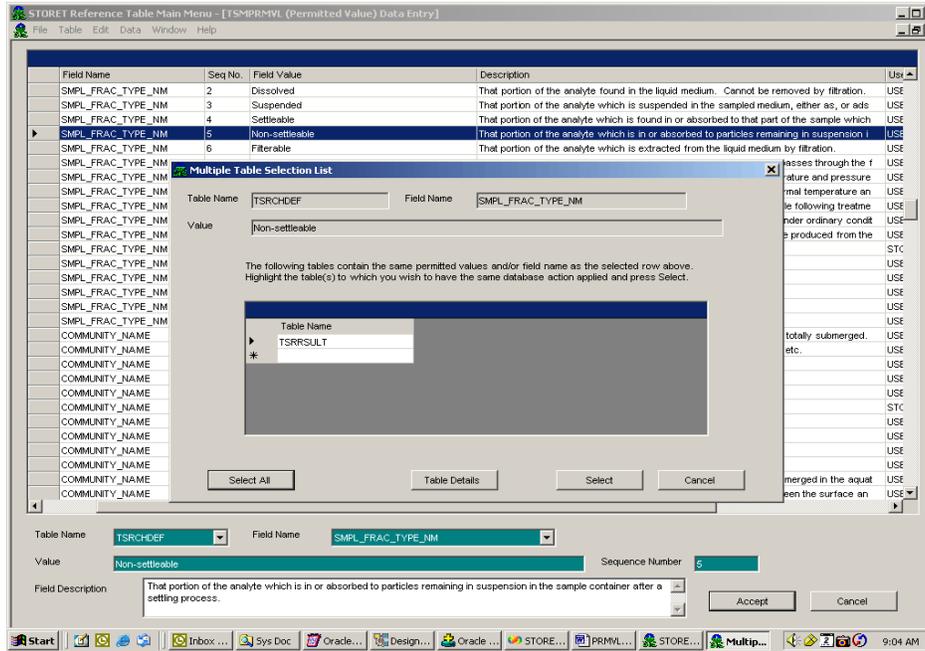
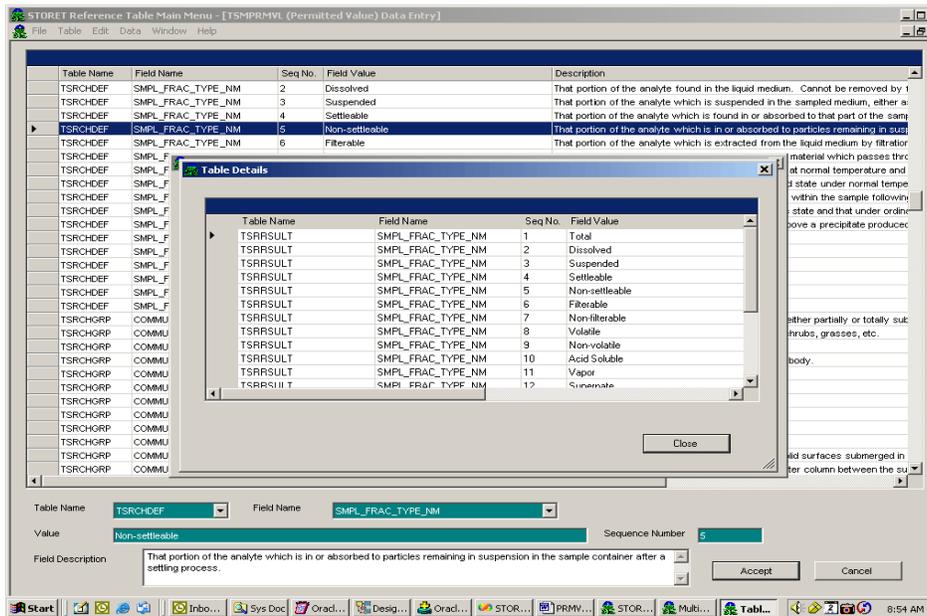
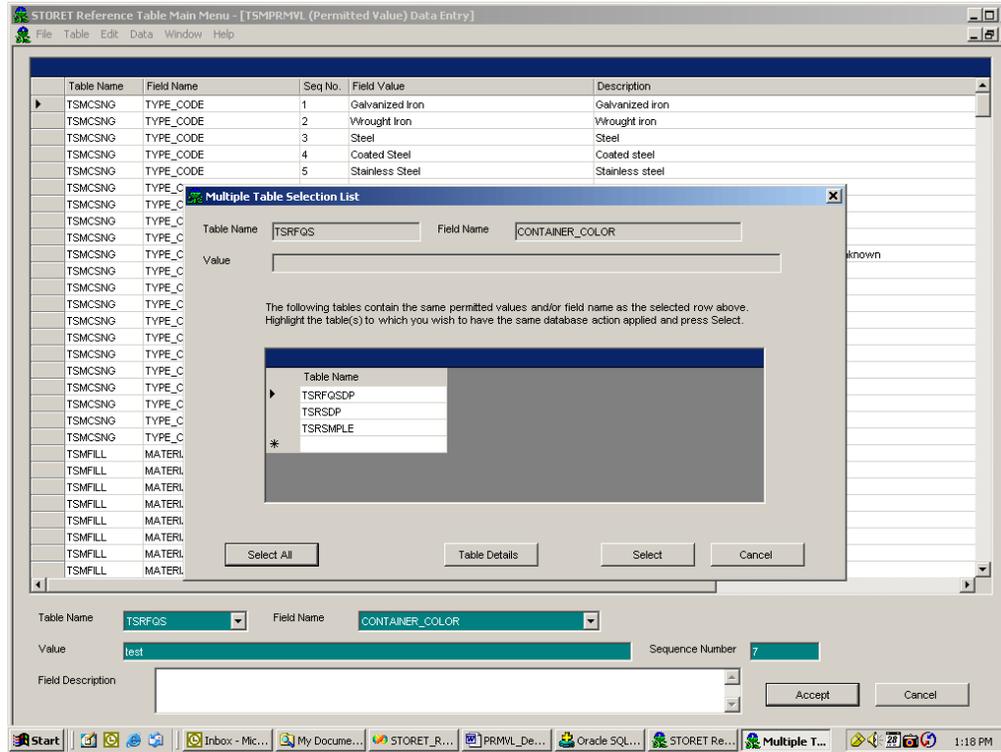


Table Details (read only):

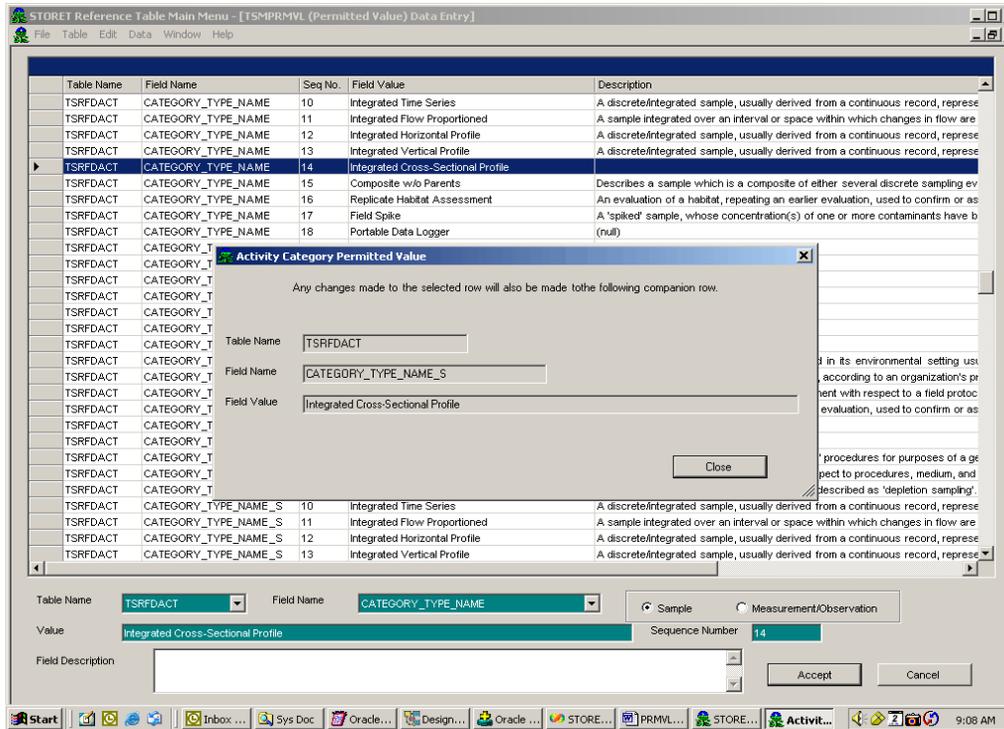


For Insert, upon pressing Accept (non-Category_Type_Name), if there is a companion table name(s):



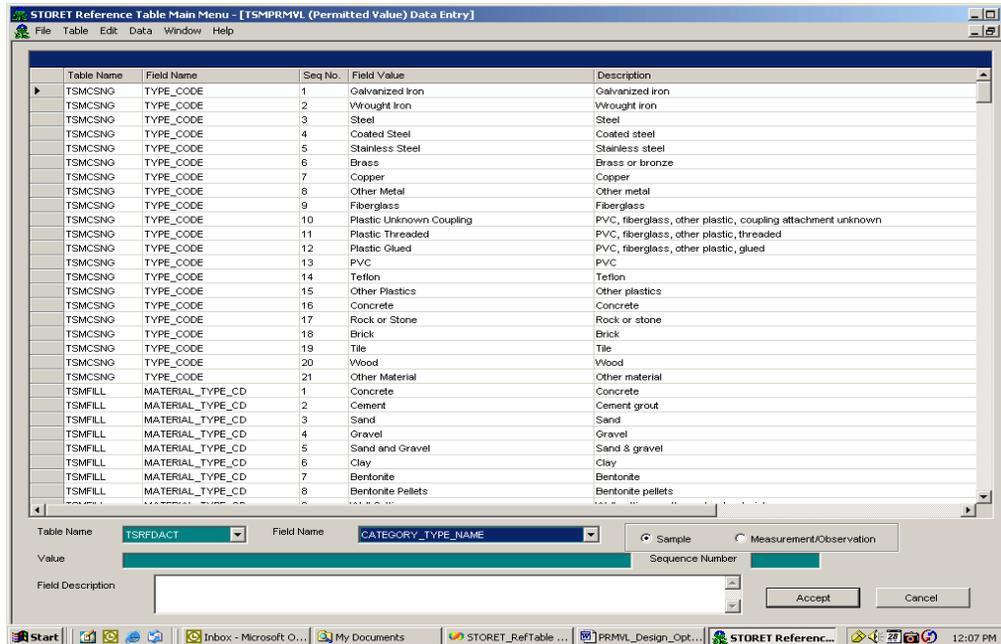
If the highlighted record (for update or delete) is one of the CATEGORY_TYPE_NAME rows that has a companion record, then popup the following and add a radio button to indicate _M or _S record.

If “created from sample” or “composite w/ parents”, then disable/hide radio button as there is no companion _S or _M record.



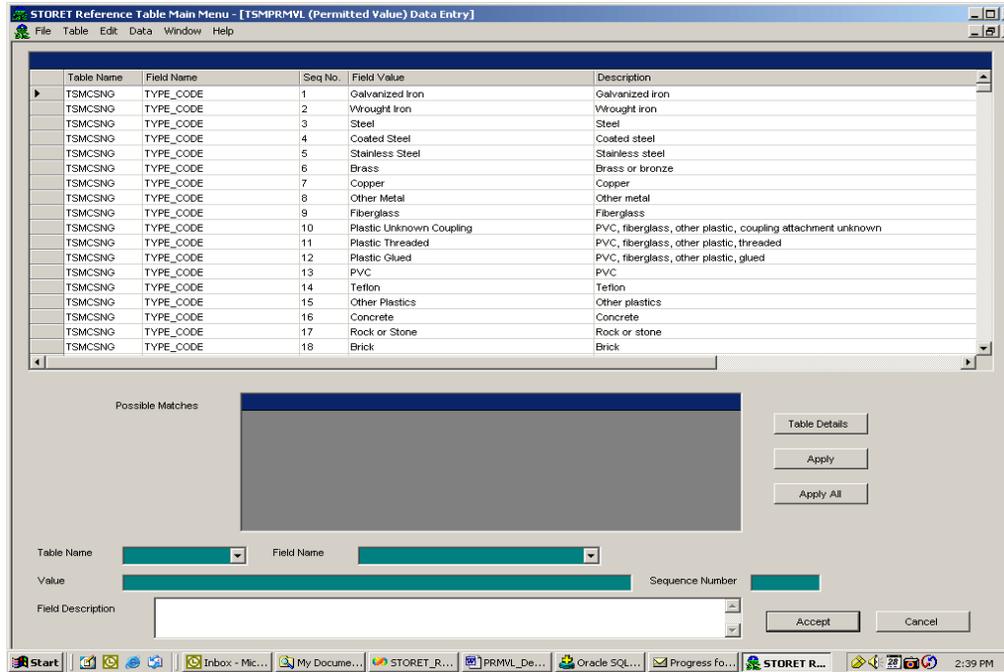
On insert, if the table_name is “TSRFDACT” and the field_name is “CATEGORY_TYPE_NAME”, then add the following radio box (mandatory) to data entry section to ensure the right companion record is added too.

Think we should exclude _M and _S entries in field_name drop down list. Radio button will be sufficient (mandatory). Default radio button to Sample.

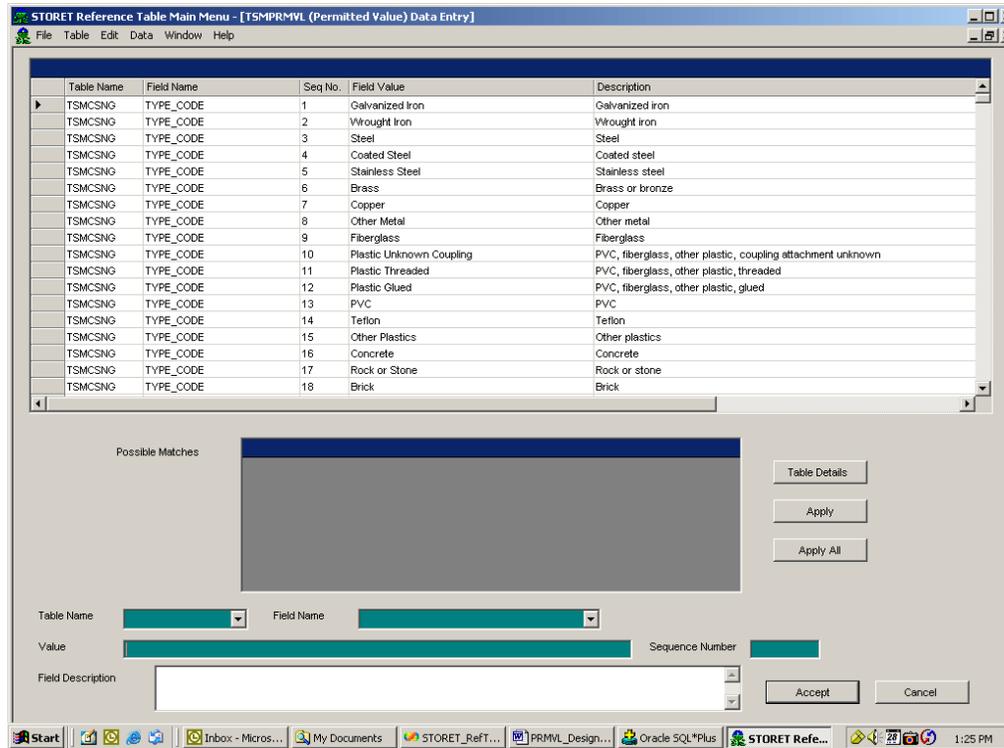


For “Category_Type_Name” like records, always keep the sequencing the same as the master “Category_Type_Name” list?

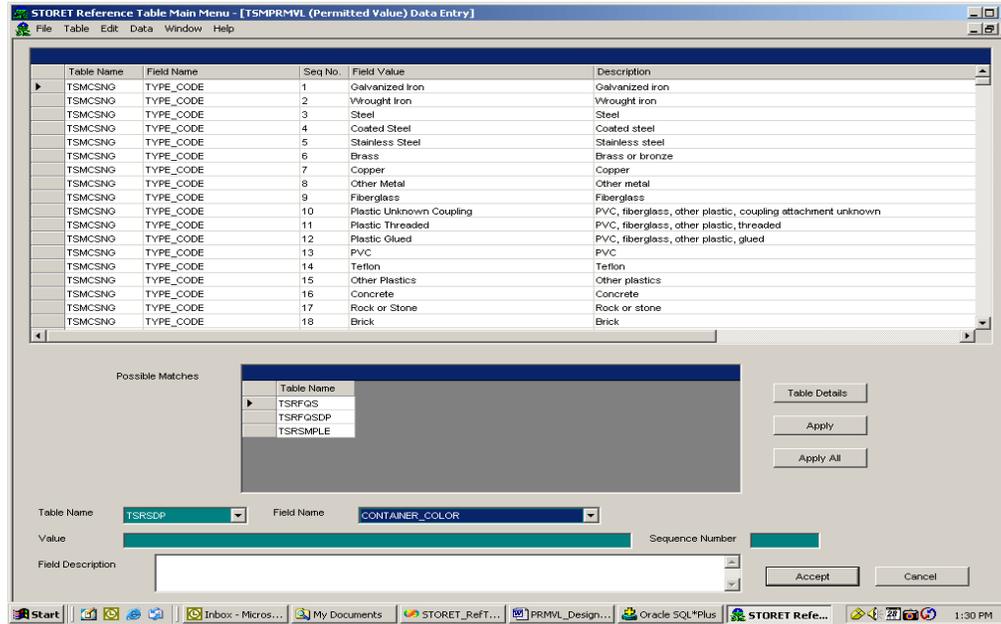
Option 2 – TSMPRMVL (Permitted Value) Data Entry:



On Insert (no possible matches yet):

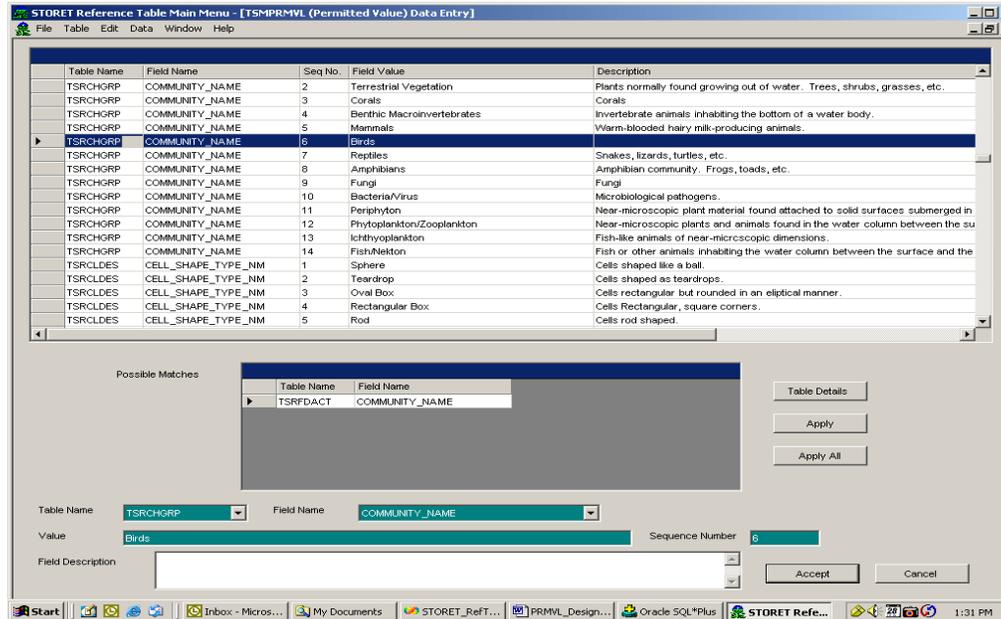


Once table name and field name are provided, do a read for table matches and display in list for selection:



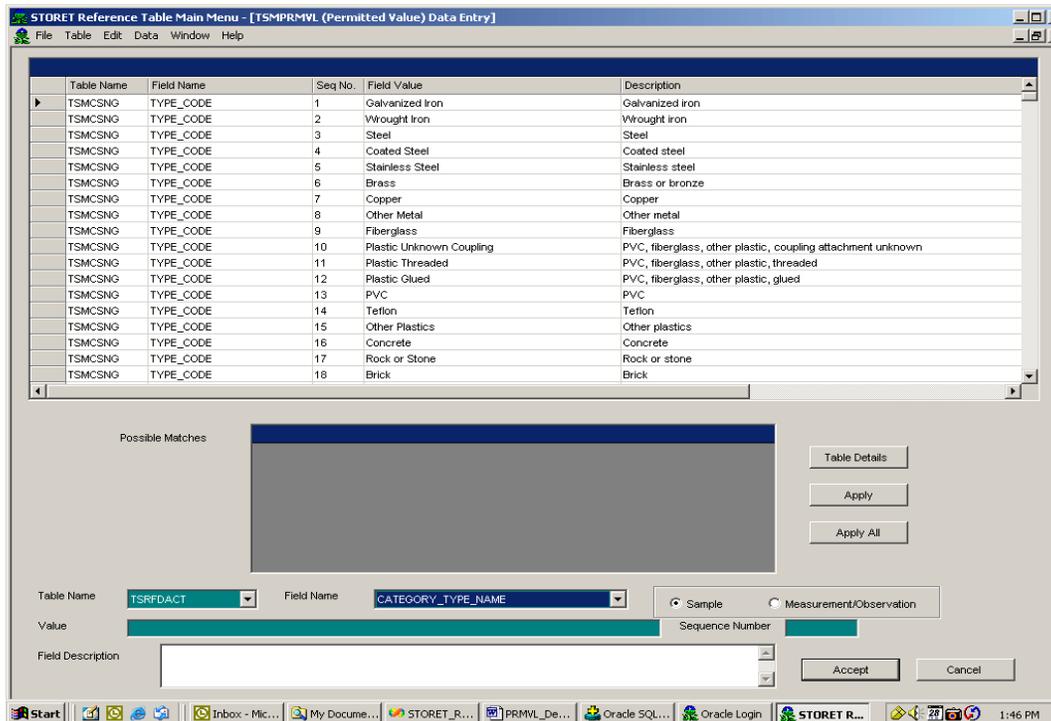
NOTE: Table Details will work just like Option 1.

When an existing record is selected (for update or delete), show matches where field_name and field_value are the same for selection:



On insert for Category_Type_Name field names, add the mandatory radio button (defaults to Sample):

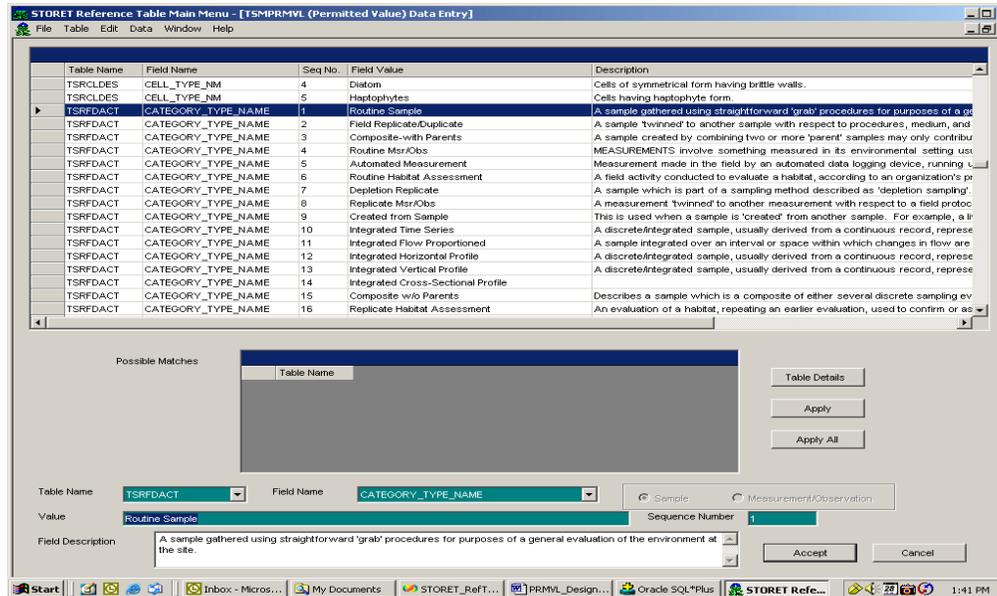
Don't include _M and _S entries in field_name list...?



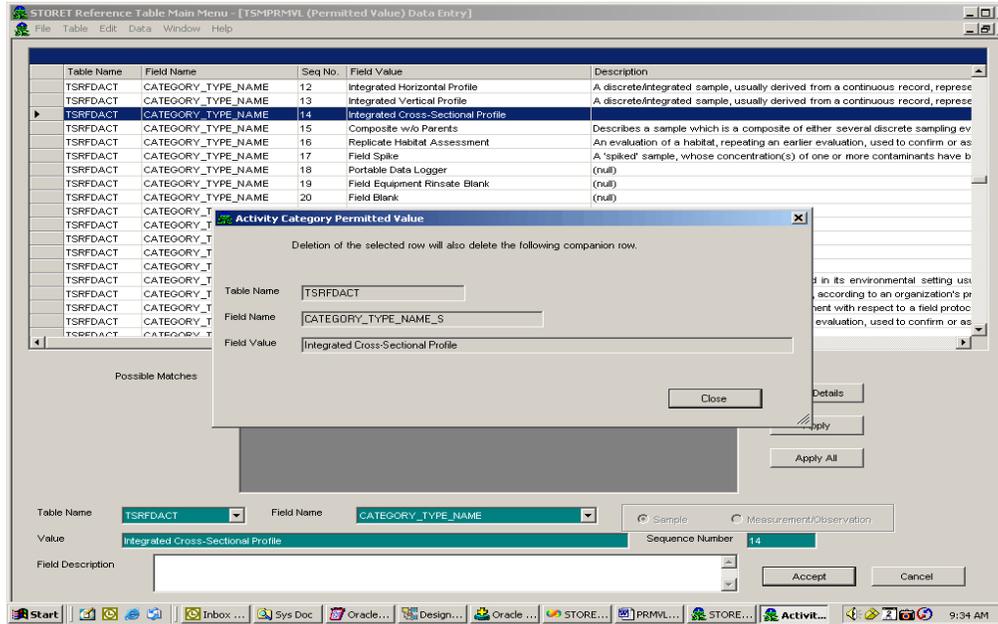
On update for Category_Type_Name, populate the radio button based on selected record (disabled):

If select an _M or _S record, don't show radio button but automatically update the corresponding "master" Category_Type_Name record.

If show CATEGORY_TYPE_NAME records that don't have a matching _M or _S (e.g. Created from Sample), then don't show radio button.



On delete of a Category_Type_Name like entry, give a message indicating its companion record will also be deleted:



Option 3:

For non-Category_Type_Name rows, use same design as Option 2.

For Category_Type_Name rows, like Option 2 except:

Don't show CATEGORY_TYPE_NAME_S and CATEGORY_TYPE_NAME_M records in list or Field Name drop down. Only show "master" CATEGORY_TYPE_NAME list.

- C On insert, show radio buttons (forces M or S creation) if CATEGORY_TYPE_NAME is selected.
- C On update, if select a CATEGORY_TYPE_NAME "master record, then read for corresponding _M/_S record. If found (some do not have them), then show radio button with the correct one selected but disabled.
- C On delete, give same popup message as Option 2 indicating companion row will also be deleted.

Option 4:

For non-Category_Type_Name rows, use same design as Option 2.

For Category_Type_Name rows, like Option 2 except:

Do not show radio buttons at all. Use "possible matches" list for all types:

- C On insert, once the field_name is provided (from drop down list), if field_name is like CATEGORY_TYPE_NAME then populate possible matches list with other field_names that have same table_name and "like" field name. Maybe do not include _M and _S types in field_name drop down.
- C On update/delete, if field_name is like CATEGORY_TYPE_NAME, then the possible matches list will be other field_names that match selected table_name and selected field_value. Maybe don't show _M and _S types in list.

Data Model (Current):

The screenshot shows a software window titled "COOL:Gen - system - [STORET_PROD_DEV_V02.0 - Data Model List]". The window contains a list of database entities and their attributes, organized into a tree-like structure. The entities are listed on the left, and their details are shown on the right. The entities include:

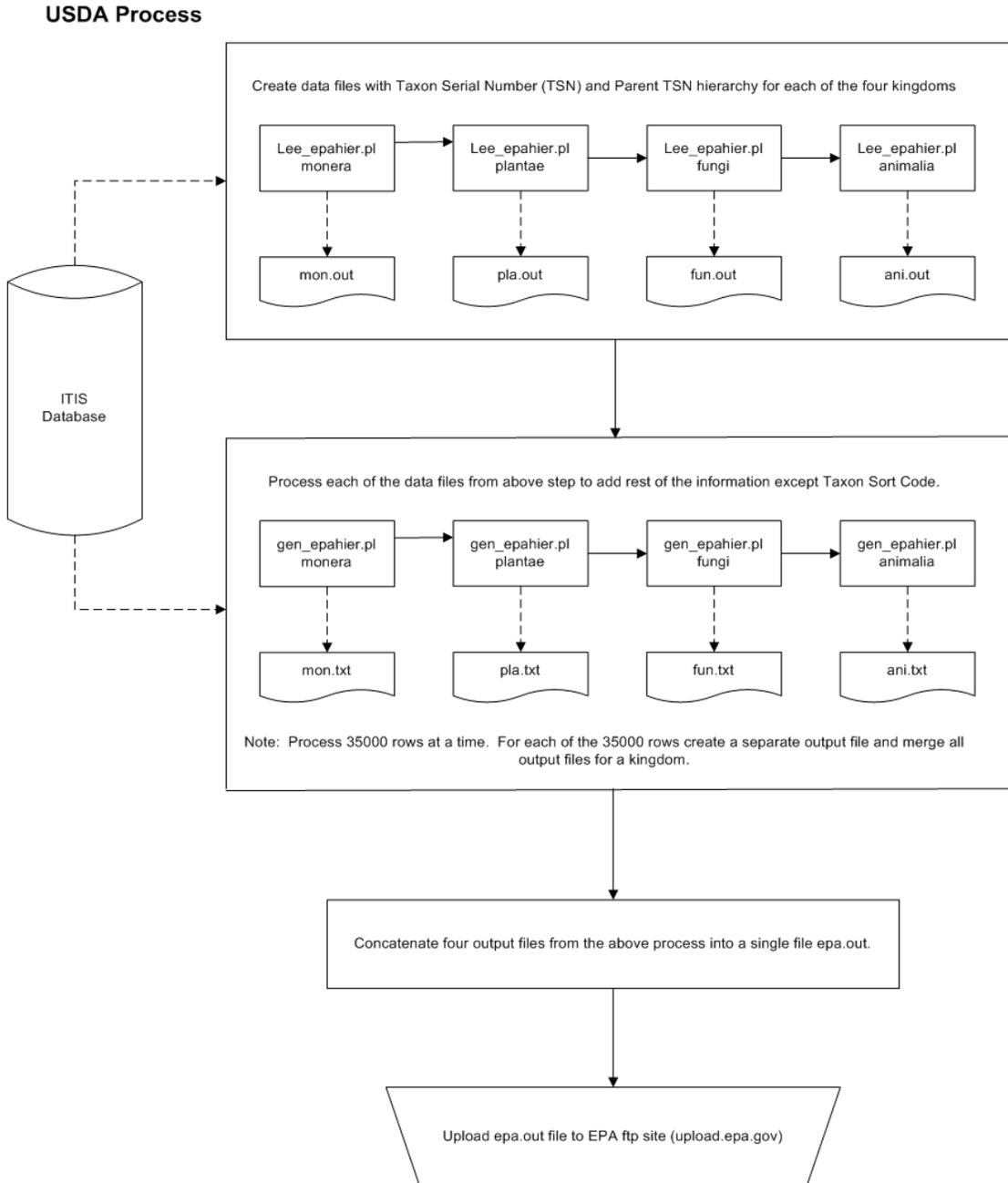
- PROJECTS ... (Subject Area)
- REFERENCE_TABLES (Subject Area)
- DBMS_USER ... (Entity Type)
- ENTITY_INTERNAL_SYSTEM_NUMBER ... (Entity Type)
- ERROR_MESSAGES ... (Entity Type)
- GENERIC_TEXT ... (Entity Type)
- PERMITTED_VALUE (Entity Type, highlighted)
- TSMPRMVL_IS_NUMBER (Number, 12, Mandatory, Designed) (Attribute)
- TSMPRMVL_ORG_ID (Text, 8, Mandatory, Basic) (Attribute)
- TABLE_NAME (Text, 8, Mandatory, Basic) (Attribute)
- FIELD_NAME (Text, 20, Mandatory, Basic) (Attribute)
- SEQUENCE_NUMBER (Number, 3, Mandatory, Basic) (Attribute)
- FIELD_VALUE (Text, 40, Optional, Basic) (Attribute)
- FIELD_DESCRIPTION (Text, 254, Optional, Basic) (Attribute)
- D_USERID_CODE (Text, 8, Mandatory, Designed) (Attribute)
- D_LAST_UPDATE_TIMESTAMP (Timestamp, 20, Mandatory, Designed) (Attribute)
- Relationships: Sometimes IS_SAMPLE_FRACTION_TYPE_OF One or More CHARACTERISTIC_DEFAULT
- Relationships: Sometimes IS_CONTAINER_FOR One or More FIELD_QC_SAMPLE_DEFAULT_PROFILE
- Relationships: Sometimes IS_CONTAINER_FOR One or More SAMPLING_DEFAULT_PROFILE
- Relationships: Sometimes IS_HABIT_OF One or More CHARACTERISTIC_DEFAULT
- Relationships: Sometimes IS_HABIT_OF One or More RESULT
- Relationships: Sometimes IS_TEMP_PRESRVTN_TYPE_FOR One or More SAMPLING_DEFAULT_PROFILE
- Relationships: Sometimes IS_CONTAINER_COLOR_FOR One or More FIELD_QC_SAMPLE_DEFAULT_PROFILE
- Relationships: Sometimes IS_CONTAINER_FOR One or More FIELD_QC_SAMPLE
- Relationships: Sometimes IS_VOLTINISM_FOR One or More CHARACTERISTIC_DEFAULT
- Relationships: Sometimes IS_CONTAINER_COLOR_FOR One or More SAMPLING_DEFAULT_PROFILE
- Relationships: Sometimes IS_VOLTINISM_FOR One or More RESULT
- Relationships: Sometimes IS_CONTAINER_FOR One or More SAMPLE
- Relationships: Sometimes IS_TEMP_PRESRVTN_TYPE_FOR One or More SAMPLE
- Relationships: Sometimes IS_SAMPLE_FRACTION_TYPE_FOR One or More RESULT
- Relationships: Sometimes IS_CONTAINER_COLOR_FOR One or More FIELD_QC_SAMPLE
- Relationships: Sometimes IS_TYPE_NAME_FOR One or More RESULT_QC_ADJUSTMENT_FACTOR
- Relationships: Sometimes IS_CONTAINER_COLOR_FOR One or More SAMPLE
- SERIAL_ORG_IDENTIFICATION ... (Entity Type)
- RESULTS ... (Subject Area)
- STATIONS ... (Subject Area)

The window also shows a menu bar with options: Model, Diagram, Edit, Detail, Generate, View, Tool, Options, Window, Help. The status bar at the bottom indicates the current window is "Window Code Generati" and the project is "STORET_PROD_DEV" with "ORACLE Data Structur" as the data source.

ATTACHMENT D

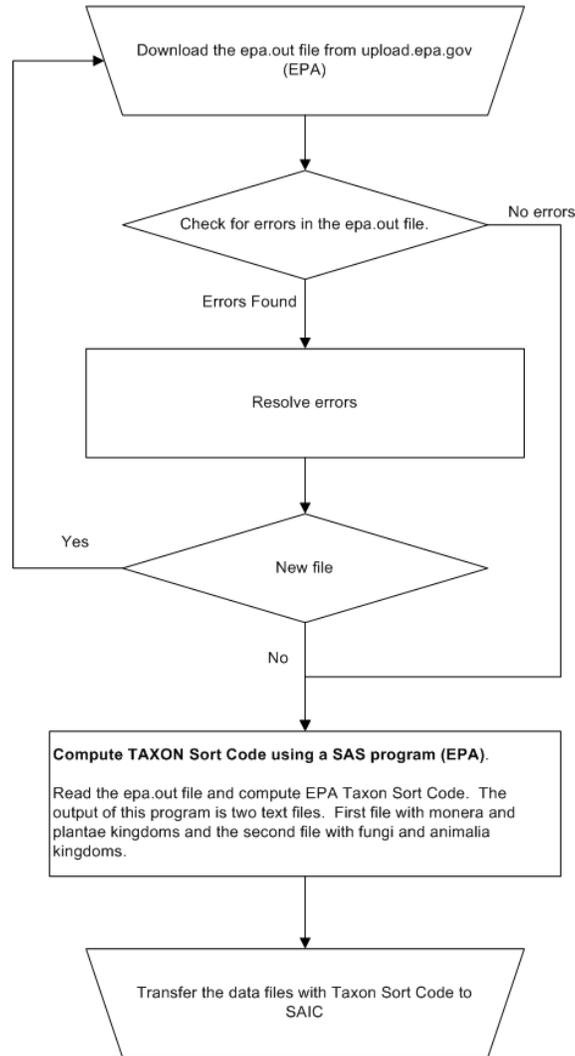
STORET Taxonomy Update Process

Existing STORET Taxonomy Update Process



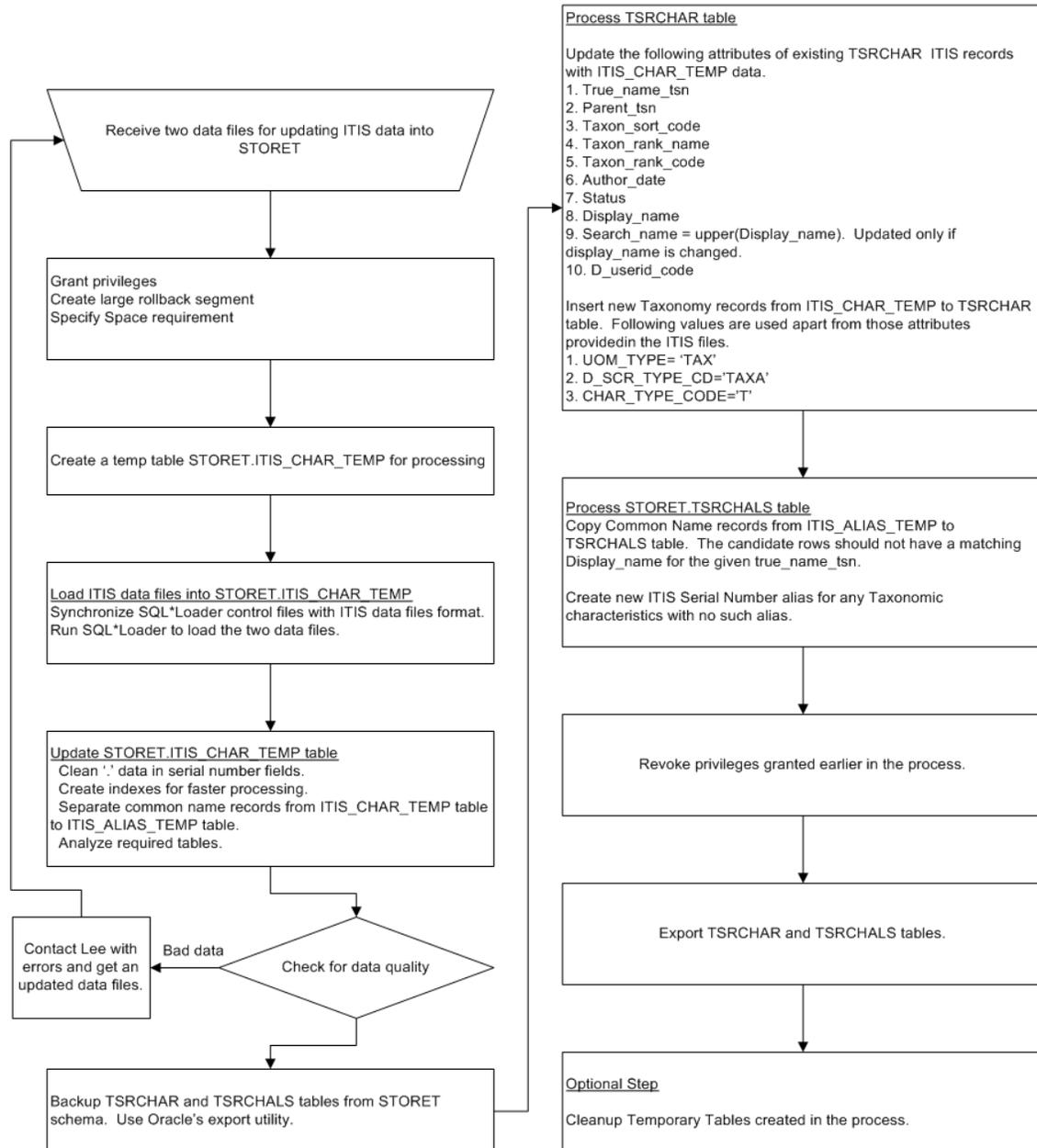
Existing STORET Taxonomy Update Process

EPA Process



Existing STORET Taxonomy Update Process

SAIC Process



ATTACHMENT E

Process Flow Utilizing Public Access of ITIS

STORET TAXONOMY UPDATE PROCESS
Process Flow Diagram

