

CETIS –SWAMP Database Translator

Appendix F

What is the CETIS-SWAMP Database Translator?

The CETIS-SWAMP database translator was developed as an aid to automatically convert CETIS formatted data to the State of California Surface Water Ambient Monitoring Program (SWAMP v2.5) data format. The translator will quickly and efficiently create a SWAMP compliant Excel workbook with all required worksheets, including the ToxBatch, Summary and Results worksheets. The translator is an independent application and only needs to link to the CETIS.mdb or a CETIS created export file. The translator is only distributed to, and can only legally be used by, licensed CETIS users. The translator requires CETIS v1.6.4 or higher and only outputs to the current SWAMP v2.5 format.

Installation of the Translator

The translator file, named CETIS-SWAMP.mde, can be copied to the folder containing the CETIS.mdb, or anywhere that is convenient. No special installation is required, although CETIS group security accounts must be active in order to access the records in the CETIS.mdb. The CETIS export files do not have any security barriers, therefore they do not need active security accounts.

Starting the Translator

Start Microsoft Access first, then click on the **File>Open Database...** command and open the **CETIS-SWAMP.mde** file directly (change the **Files of Type** list to **MDE Files** if necessary). Alternatively, double-click on the **CETIS-SWAMP.mde** file from Windows Explorer or create a short-cut.

Important

You must log in as a member of the CETIS Admins group to use the translator. Only members of the CETIS Admins group have the necessary permission to access the CETIS.mdb.

Using the Translator

Once the **CETIS-SWAMP.mde** file has been opened, the translator will automatically begin to run and display the startup screen with copyright notice. Once you close the startup form, the main application form will become visible (figure F-1)

The first time you start the utility, you may see in the text box next to the **Relink CETIS Tables...** command button a message indicating that the link between the CETIS.mdb and the translator has not been established yet. Click on the **Relink CETIS Tables...** button and locate the CETIS.mdb or the CETIS export file. Once successfully linked, you will see a message that begins with “;DATABASE=” indicating the file that you are linked to (figure F-1). You can relink to a different database at any time, but it must be CETIS v1.6.4 or higher.

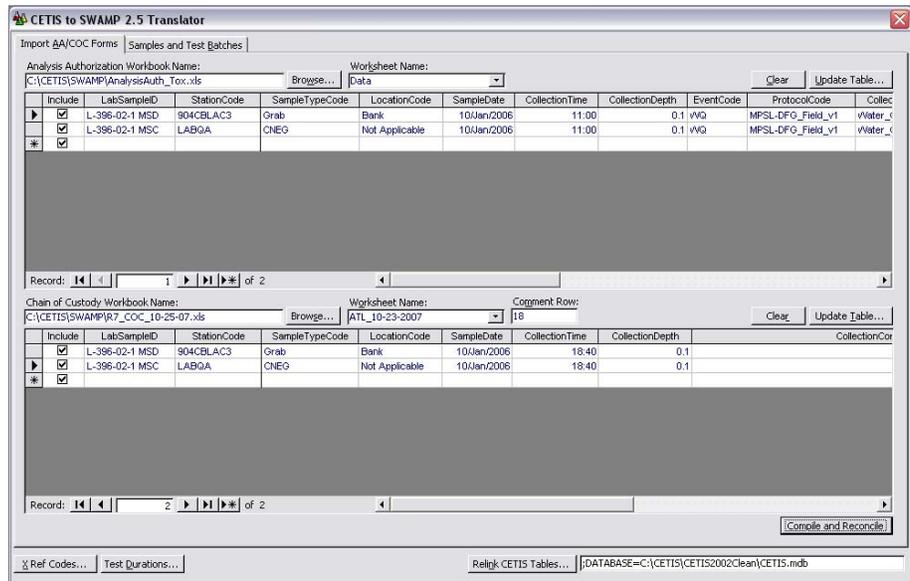


Figure F-1. Import AA/COC Forms page.

The main application form has two pages, a tabbed page named **Import AA/COC Forms** (figure F-1) and a tabbed page named **Samples and Test Batches** (figure F-2). The **Import AA/COC Forms** page is for importing records directly from a SWAMP compliant “Analysis Authorization” Excel workbook and/or the “Chain of Custody” Excel workbook. The **Samples and Test Batches** page is for compiling the data shown in the **Import AA/COC Forms** page (figure F-1) into a single record for each sample and saving the data as a permanent record in the utility (figure F-2).

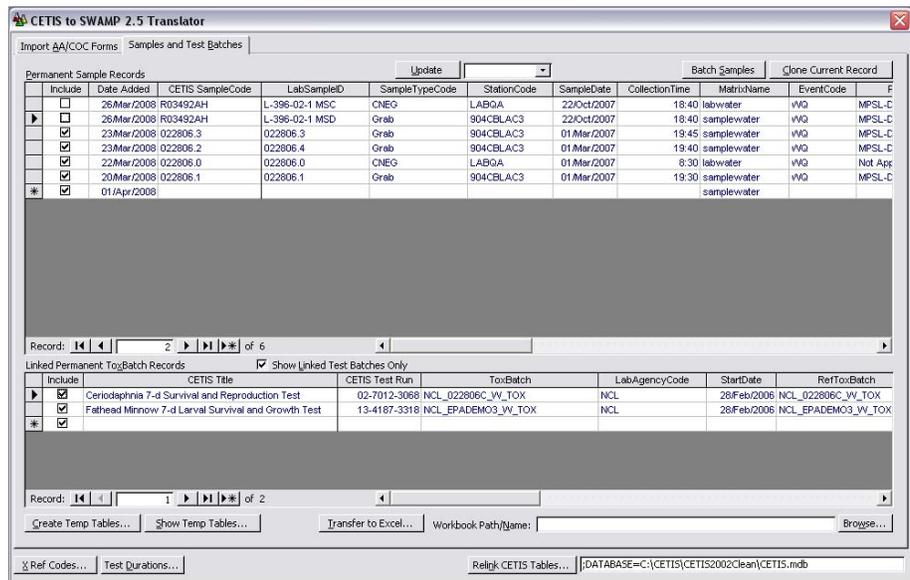


Figure F-2. Samples and Test Batches page.

Importing Data from Existing Excel Workbooks

You can bypass the **Import AA/COC Forms** page entirely and enter the data directly into the **Permanent Sample Records** subform or use the **Clone Current Record** button to make an exact copy of the current sample record as discussed in the section “Manually Adding Sample Records.”

If you are provided both the SWAMP compliant “Analysis Authorization” and “Chain of Custody” workbook files, it may be easier to import the records using the automated system. The records displayed in the subforms of the **Import AA/COC Forms** page are maintained in temporary tables and are used only to create the permanent sample records displayed on the **Samples and Test Batches** page. Each time you import data from new workbooks, the previous records are deleted.

To import the Analysis Authorization (AA) records:

- 1) Click on the **Import AA/COC Forms** tab if it is not already active.
- 2) Click on the **Browse...** button to locate and open the AA workbook, then press the **Open** button.
 - Alternatively, you can type the full path and name of the file in the **Analysis Authorization Workbook Name** edit box.
- 3) Select the appropriate worksheet containing the data records after the list has been updated.
- 4) Click on the **Update Table...** button. If the workbook was SWAMP compliant, then you should see all of the importable AA records in the updated subform.
- 5) Edit the fields as necessary. The SWAMP Data Management Team require that all fields be completed with an entry, although the comment fields can be left blank.
 - Most of the fields have dropdown list boxes associated with them and you are required to select or type an item in the list.
 - You must enter the correct **LabSampleID** in both the AA and COC subforms so the utility can appropriately group or link the records when merging them.

Very Important

To import the Chain of Custody (CC) records:

- 1) Click on the **Import AA/COC Forms** tab if it is not already active.
- 2) Click on the **Browse...** button to locate and open the CC workbook, then press the **Open** button.

- Alternatively, you can type the full path and name of the file in the **Chain of Custody Workbook Name** edit box.
- 3) Select the appropriate worksheet containing the data records after the worksheet name list has been updated.
 - 4) If there are toxicity specific comments on the COC form, specify the row number in the **Comment Row** edit box.
 - The translator will automatically remove any numerical superscript that appears before the text.
 - 5) Click on the **Update Table...** button. If the workbook was SWAMP compliant, then you should see all of the importable CC records in the subform.
 - 6) Edit the fields as necessary. The SWAMP data managers require that all fields be completed.

To merge and reconcile the AA and COC temp tables:

- 1) When you have completed all required fields in the AA and COC subforms, select or deselect the **Include** field to either include or exclude the record.
 - Use the short-cut menu (right-click) and choose the **Attach All Tags** or the **Detach All Tags** command as needed.
 - You can filter the subform using the **Filter By Selection** command, prior to choosing the **Attach All Tags**, and only visible records will get tagged.
- 2) Click on the **Compile and Reconcile** button to merge the two tables.
 - Entries in the COC temp table takes precedence over the AA table since it is more likely to be accurate. If you do not want the COC temp record to take precedence, then deselect the **Include** checkbox(s) in the COC subform.
- 3) The active page will switch to the **Samples and Test Batches** page after clicking on the **Compile and Reconcile** button.

Manually Adding Sample Records

Instead of using the **Import AA/COC Forms** page to import data from existing Excel workbooks, you can also create new records or clone existing records in the **Permanent Sample Records** subform. In some cases, this may be much faster if the number of records is small.

To enter a new sample record:

- 1) Switch to the **Samples and Test Batches** page.
- 2) At the bottom of the **Permanent Sample Records** subform, begin filling in the fields in the row marked with an asterisk (“*”). Be sure to complete the entire record.

Note

- The **LabSampleID** can be different than the CETIS **SampleCode**, but the **CETIS SampleCode** must correspond to a sample record in the CETIS database.

To clone an existing sample record:

- 1) Select a record that comes close to representing the record you want to add.
- 2) Click on the **Clone Current Record** command button. The record should be cloned and will appear at the top of the subform.
- 3) Edit the record as needed including **CETIS SampleCode**, **LabSampleID** and dates and times.

Batching Tagged Sample Records

The SWAMP database design requires that all samples and controls run on the same day with the same species and test method be batched together. The translator will quickly and efficiently do this based upon the batching of samples in the CETIS database, also known as a **Test Run**.

To create a new ToxBatch record:

- 1) Enter a **CETIS Sample Code** for each record in the **Permanent Sample Records** subform. This 15 character alphanumeric code must match the **Sample Code** in the CETIS database. You are free to edit the **LabSampleID** at this time.
- 2) When you have completed all required fields in the **Permanent Sample Records** subform, select or deselect the **Include** checkbox to tag the record for inclusion or exclusion, respectively.
- 3) Click on the **Batch Samples** command button to batch the selected samples.

Important

- The translator will analyze which tests were run for each sample and will include all of those in which there is at least one endpoint analyzed that was marked as **Official**. Only official records in the CETIS database will be translated.

Create and View SWAMP Formatted Data

- The records appearing in the **Permanent ToxBatch Records** subform is dependant on which sample records are tagged for inclusion. As the user changes the tag status, the number of ToxBatch records displayed may increase or decrease. To see all ToxBatch records stored in the translator, deselect the **Show Linked Test Batches Only** checkbox.

The translator creates temporary records for the ToxBatch, Summary and Results worksheets. This allows you to edit the tables prior to the final translation to Excel.

To create and view the SWAMP temp record:

- 1) Complete the records in the **Permanent ToxBatch Records** subform. Select the appropriate LabSubmission code if different from “A” (Acceptable).
- 2) Select or deselect the **Include** field in the **Permanent ToxBatch Records** subform.
 - Only those ToxBatch records that are tagged will get translated, so this is an easy means to limit what gets translated.
- 3) Click on the **Create Temp Tables...** command button. The status bar will indicate what data are being processed.
- 4) Click on the **Show Temp Tables...** command button to view the records. You can edit the records as needed, including the **ToxResultQACode** and **ToxResultComments** on the **SWAMP_Results_Temp** table and the **TestQACode** on the **SWAMP_Summary_Temp** table.

Transferring Data to an Excel Workbook

Transferring the SWAMP formatted data from the temp tables in Access to the Excel format is the last step required.

To create a new Excel workbook and transfer the data:

- 1) Click on the **Browse...** button to specify the name and path of the new Excel workbook, then press the **Save** button.
 - Alternatively, you can type the full path and name of the file.
 - If you select the name of an existing workbook, the translator will ask if you want to overwrite the existing file, in which case the old file will be permanently deleted.

- 2) Click the **Transfer To Excel** command button to initiate the transfer sequence. The Excel application will open and display the workbook when done.
- 3) You can close the Excel application at any time.

Adding Cross-Referenced Codes

In order to convert CETIS compatible codes to SWAMP compatible codes, a special table exists in the translator that can be edited by the end-user.

To edit or add new cross referenced codes:

- 1) Click on the **X Ref Codes...** button to open the **CETIS-SWAMP Code Cross Referencer**. Initially all records will be displayed in the **Cross Referenced Codes** subform (figure F-3).
- 2) Select the desired code type from the **SWAMP Lookup** dropdown list. The records in the **Cross Referenced Codes** subform will now reflect which code type is being edited (figure F-4).
- 3) Select the CETIS code you want to cross-reference.
- 4) Select the equivalent SWAMP code.
- 5) Click the **Add Code** command button to add the code. Close the form when done.
 - If a code entry is being updated instead of added, you must first delete the existing record. Do this by right-clicking on the record in **Cross Referenced Codes** subform and choose the **Delete Record** command.
 - More than one CETIS code can be cross-referenced to a single SWAMP code as shown in figure F-4.

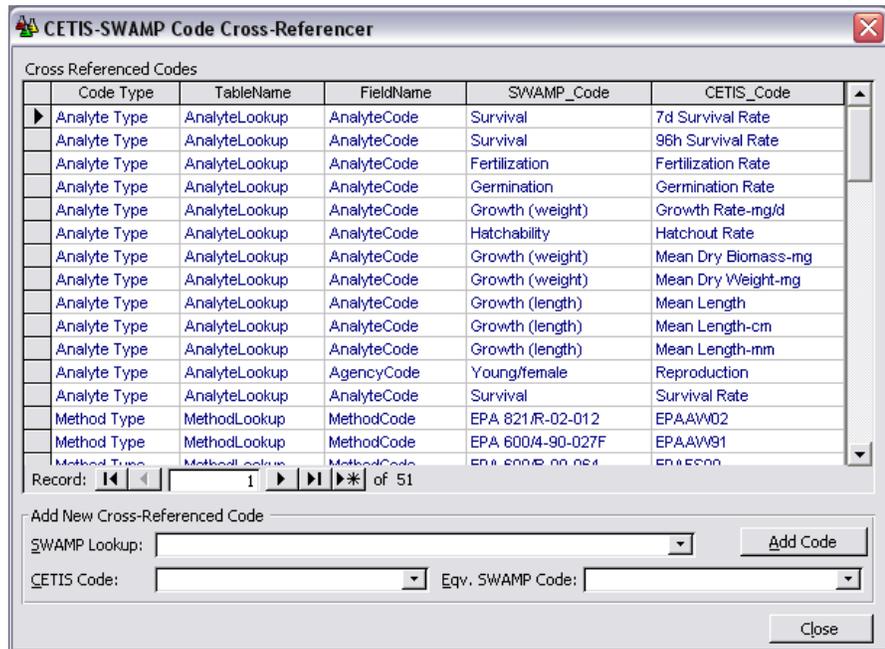


Figure F-3. CETIS-SWAMP Code Cross Referencer.

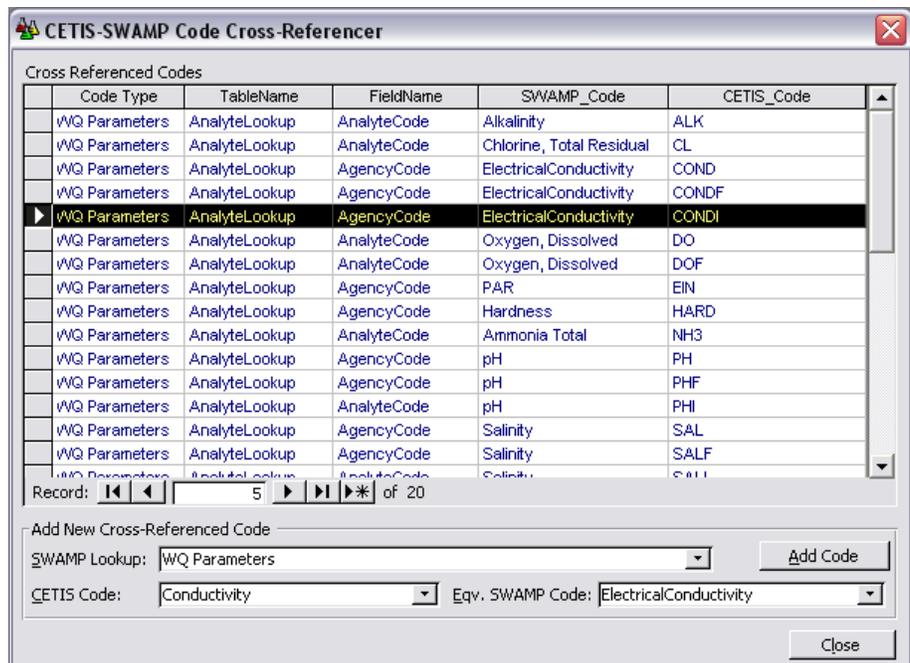


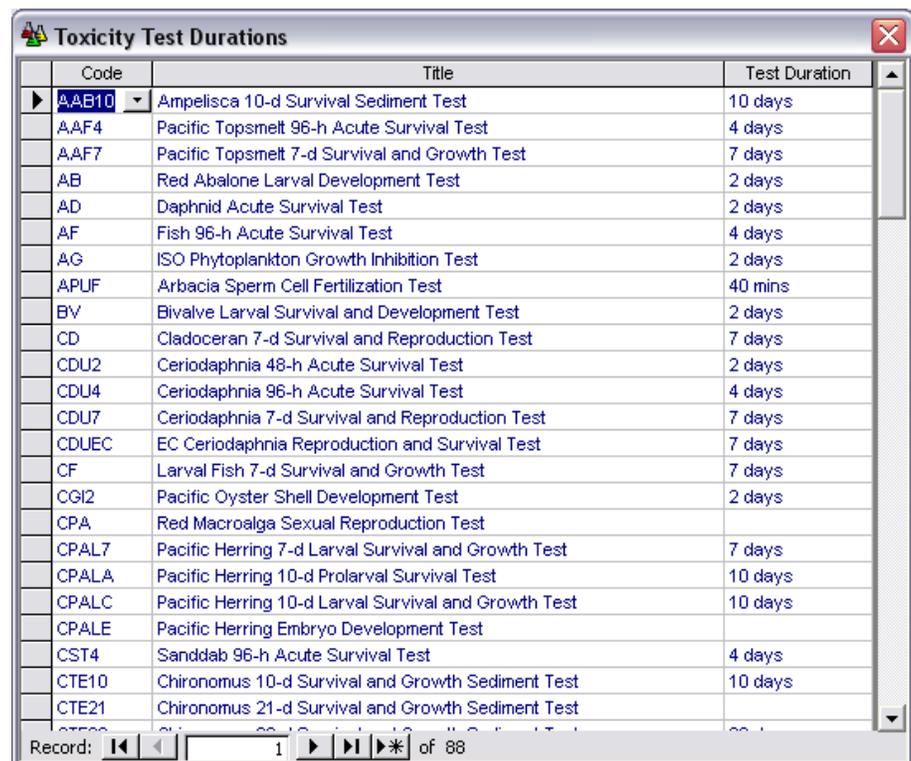
Figure F-4. CETIS-SWAMP Code Cross Referencer (Filtered).

Editing Test Durations

The SWAMP database requires the expected test duration for each species/matrix/method combination. Since the CETIS database does not store the expected test duration, only the actual test duration, a special table exists to associate each CETIS **Test Title** with a definitive test duration in the SWAMP compliant format. If the **Test Title** you want to edit is already in the list, the correct test duration should already be entered.

To edit or add new test durations:

- 1) Click on the **Test Durations...** button to open the **Toxicity Test Durations** datasheet form (figure F-5).
- 2) Go to a new record at the bottom of the table and choose a **Test Title Code** from the dropdown list.
 - The Title should automatically appear and does not need to be entered.
- 3) Select the appropriate **Test Duration** from the list.
- 4) When done, close the form



Code	Title	Test Duration
AAB10	Ampelisca 10-d Survival Sediment Test	10 days
AAF4	Pacific Topsmelt 96-h Acute Survival Test	4 days
AAF7	Pacific Topsmelt 7-d Survival and Growth Test	7 days
AB	Red Abalone Larval Development Test	2 days
AD	Daphnid Acute Survival Test	2 days
AF	Fish 96-h Acute Survival Test	4 days
AG	ISO Phytoplankton Growth Inhibition Test	2 days
APUF	Arbacia Sperm Cell Fertilization Test	40 mins
BV	Bivalve Larval Survival and Development Test	2 days
CD	Cladoceran 7-d Survival and Reproduction Test	7 days
CDU2	Ceriodaphnia 48-h Acute Survival Test	2 days
CDU4	Ceriodaphnia 96-h Acute Survival Test	4 days
CDU7	Ceriodaphnia 7-d Survival and Reproduction Test	7 days
CDUEC	EC Ceriodaphnia Reproduction and Survival Test	7 days
CF	Larval Fish 7-d Survival and Growth Test	7 days
CGI2	Pacific Oyster Shell Development Test	2 days
CPA	Red Macroalga Sexual Reproduction Test	
CPAL7	Pacific Herring 7-d Larval Survival and Growth Test	7 days
CPALA	Pacific Herring 10-d Prolarval Survival Test	10 days
CPALC	Pacific Herring 10-d Larval Survival and Growth Test	10 days
CPALE	Pacific Herring Embryo Development Test	
CST4	Sanddab 96-h Acute Survival Test	4 days
CTE10	Chironomus 10-d Survival and Growth Sediment Test	10 days
CTE21	Chironomus 21-d Survival and Growth Sediment Test	

Record: 1 of 88

Figure F-5. Toxicity Test Durations table.

Editing and Adding SWAMP Codes

At the time of its publication, the translator contains all of the existing SWAMP codes in what is known as lookup tables. However, if new codes need to be added or existing codes need to be edited, a menu driven system allows you to open and edit the lookup tables.

To open and edit a lookup table:

- 1) Click the **Edit>Lookup Tables...>**[Name of the lookup table].
- 2) Add or edit the code, making sure it is a SWAMP approved code.
- 3) Close the table when done.

Compacting the Translator Database

Because the translator database can grow in size when records in the temp tables are deleted, it is imperative that the database be compacted regularly or be set to compact upon closing.

To compact the translator:

- 1) Click on the **Tools>Compact and Repair Database**.
 - The database will automatically be compacted. The main application form will then re-open and become visible.

