102/17/00 Notes
-- by RLTooly, EPA/ OAQPS/ Emission Factors & Inventory Group

Converting Local Data Formats to NET Input Format

Case Scenario -
West Virginia Conversion of I-STEPS (local database) Format to NIF V1.2 (for point data)

-- Based on my discussion with Dave Porter of WV. For more specific information, or questions, contact Dave Porter of WV ***- dporter@mail.dep.state.wv.us***

STEPS

1. Compare the data elements between the two formats and document the correspondance, including relative locations.

Compared point source data elements in the I-STEPS format to the data elements of the NIF V1.2 Point source file/ records -- identified and documented correspondance and differences.

Used the following resources:
- I-STEPS data dictionary and code tables.

- EPA guidance document on AFS to NET Convertor specifications to help develop the interim mapping logic from AFS data elements to NIF data elements
(as I-STEPS has a utility to generate AFS batch transaction formats).

- NIF V1.2 specification (in Excel) to identify the target data definitions, data types, data field formats.

- NIF V1.2 Appendix A to identify specific implementation requirements of NIF data elements.

- NIF V1.2 Code tables to identify valid target code values.

2. Develop cross reference tables to relate the respective code table used by both formats.

Imported code tables from both I-STEPS and NIF V1.2 into MS Access and developed queries to compare coded values across respective tables and create cross reference tables to use during conversion step

Determined the units applied in I-STEPS for throughput values, and used the EPA SCC_map.xlw file to derive the NIF unit components for throughput (eg., UNIT NUMERATOR, MATERIAL, MATERIAL I/O) , and update the affected cross reference tables.

The SCC_map.xlw file is a look-up table that contains the corresponding valid NIF (throughput) unit values where standard throughput units have been applied in AFS by SCC , as well other likely throughput unit values.

3. Perform QC and data clean-up routines.

Developed queries in MS Access to do QC and 'data clean-up' routines, prior to the format conversion, to:

- Identify any mis-matches or lack of correspondance between code tables, and to update the affected cross reference table(s) that the conversion step will employ;

- Identify existence of 'non-standard' throughput units for specific SCCs, based on the EPA' s SCC_map.xlw file, and to update affected cross reference tables;

- Identify coded values used in I-STEPS that are invalid in NIF V1.2, and replace with valid values in cross reference tables .

4. Create a program to employ results of above steps and perform the format conversion.

Used some of the available macros in MS Access to organize the custom queries in desired run order. The format conversion is performed by running these macros. The macros work together in sequence to import data from I-STEPS to a .mdb 'container' file that is operated on by the custom queries to: do the QC routines: identify where data clean-up is needed: perform the data clean-up in cross reference tables, and turn on the mapping routines to populate the NIF V1.2 point source records (tables in the .mdb file).