

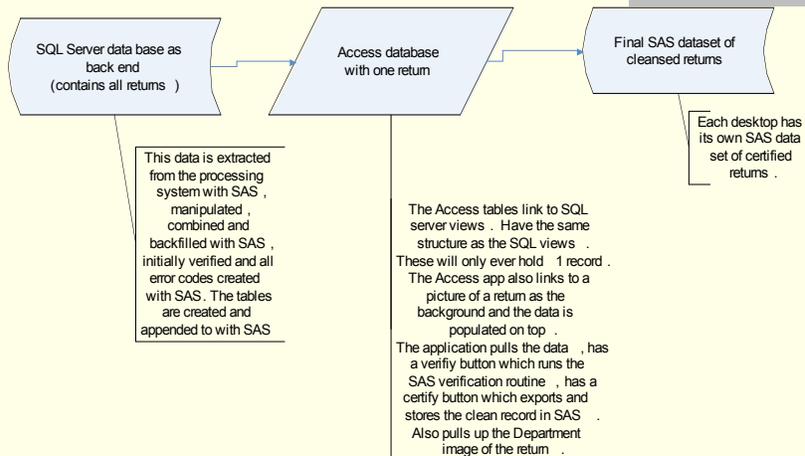
Access/SAS application for verification and correction: corporate tax returns

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Steps in our decision

- SAS verification was already written
- We were not familiar with any SAS front end to allow data entry
- We were familiar with Access forms and screens
- We had done other applications with just Access
- Had to be done within one cycle
- **DECISION**– Access forms with SAS verification

Overview of Approach



Load SQL Server data base

- NYS corporations may file any of 3 main returns and any of 33 credit forms attached.
- SAS data sets are created from the processing system and combined into complete filings
- SAS programming “backfills” missing data, performs auto correction of errors, and creates the “error” string for the return from verification.
- Error string is one field created in SAS
- This entire data base is the loaded into 8 SQL tables whose structure is mirrored in the Access Application

Creation of Access Forms

- Access forms are created with each page of the form using a page of the tax form as the background
- These pages are combined into sub-forms
- These sub-forms are then included as tabs on the main form.
- There is also a Verify Button and a Certify button on the main form.
- On the flash screen, one record is called from the SQL tables and loaded into the Access tables and the filter is set for this record.

Verify Button

-  With VB code, closes all the Access tables
-  Sets the record source to nothing to prepare to repopulate the tables
-  Executes a SAS program (similar to the MSDOS batch commands) – The exact syntax was perfected by Roger Cohen
-  The SAS program :imports the access tables (1 observation), merges into one filing by the document number, runs verification via %include, re-creates the error string, turns the one SAS data set back into multiple data sets which exports to each Access table, and sets the primary key (code which Roger Cohen will be presenting at North Eastern SAS Users Group conference in November).

Verify button (cont.)

-  Sets the record source for each form to the appropriate access table
-  Filters again for the appropriate document number (record) to repopulate the form
-  At this point they can continue to work on the same record until no errors remain

Certify Button

-  Similar to the verify button but there is no filtering to work on the same record (steps 5,6,7 are eliminated).
-  This button goes through the same steps (closing tables, etc) but executes a different SAS program
-  SAS program imports the data from the 5 tables (again 1 record), merges by document number into one filing, merges this record into the accumulated file
-  assigns a process date, a process time and an emp ID of who corrected the record (each record already has an assign ID)
-  Each clerk has his/her own accumulated file on a shared drive

Access to file as it grows

- Each night a scheduled SAS job runs which merges all the individual accumulated files
- Merges all the clean records with the entire file(used to produce the SQL server tables) by document number and replaces the dirty record with the clean one.
- Other programs:
 - Create the various versions of the file
 - Create a cube which summarizes the entire file including percent clean, for entire file and for each clerk.

Conclusion and demonstration

- This application and system is somewhat highly improvised, (Apollo 13) but it WORKS and was completed in one cycle.
- The staff love the background
- I would prefer to do it all in one software – SAS
- Here is what it looks like.