Best Practices

This document outlines the recommended best practices for the colleges to consider when using the SQL Data Staging Area (DSA-S).

All Databases

There are a few best practices to consider for all databases when you create your staging database and are extracting data:

- It is recommended to extract the data using little to no data transformation during the extract process. Moving the data in its raw state:
  - Allows for quicker data extract processing time.
  - Provides a way to verify that the data in your staging area matches the data in the Production system.
- Many tables in the Production databases include Foreign Key relationships. These foreign keys have been removed from the databases in the DSA-S. It is recommended that you do not apply foreign key constraints to your staging database. That said, a script that defines the foreign key relationships for each database has been provided on the SUE site so these relationships can be identified when trying to understand the data and its relationships.
  - Excluding Foreign Keys in staging areas is considered an industry best practice.
    - Foreign Key relationships can impact load performance on your college's staging database by making data loads slow.
    - Foreign Key relationships can cause load errors when inserting the data as the order that data is loaded becomes critical.
  - If you elect to add Foreign Key relationships to your staging area database, update the parent table before the corresponding child tables to minimize errors.

Degree Audit Database

The data in the SQL Degree Audit database contains a combination of data that was created by the Degree Audit application and data that is imported from the Legacy HP-UX (Eloquence) environment.

Best practices to consider when extracting data from the Degree Audit data include:

- Limit extracts for data that comes from the legacy (HP-UX) system to match the update frequency that is included in the ETL process. Updating this data more frequently to your college staging database will not provide any new or updated data. Here is a recap of the schedule:
  - Course and catalog data is updated daily; the process is completed by 7:30 a.m. for all schools.
  - Student data is loaded twice each day; the process is completed by 8:00 a.m. and 2:00 p.m. for all schools.

Financial Aid Database

The data in the SQL Financial Aid database contains a combination of data that was converted from the Image (SAFER) database when the project was deployed in 2008, data that has been created or updated by the Financial Aid application in either batch or on-line mode using the Windows based Financial Aid application and data that has been modified by processes run by our Legacy System on the HP-UX and written to the Financial Aid SQL database using data adapters.

Best practices to consider when extracting data from the Financial Aid data include:

- Avoid extracting data during the batch and production times – the exact time varies for each college, but avoiding extracting data between 7:00 p.m. through 3:00 a.m. will cover most colleges. This is the time period when data from the legacy (HP-UX) system is accessing and updating large amounts of Financial Aid SQL data.
    - There are also batch processes that run from the Windows Financial Aid application during this time that add or update large amounts of data.

- Data filtering can easily be done in SQL so full table extracts of older data is not needed for every extract. It is recommended to create your extracts to limit the data for incremental updates to include only new or updated data:
    - Data for the current year and session can be identified by the field SAF_YR_SES in many Financial Aid tables.
    - Recently added or updated data can be identified by the update time stamp, the CTL_UPD_TSTAMP field in most tables.
        - Added and updated data is easily identified by the update time stamp, but deleted data cannot be identified by the update time stamp.

SBCTC Upload Engine (SUE) Site

The SBCTC Upload Engine (SUE) site will be used by the SBCTC-ITD to provide access to SQL Scripts in Data Manipulation Language (DML). Scripts you will find on this site for upload include a comprehensive script to create the tables for your Degree Audit and a Financial Aid staging database and scripts to apply for any schema changes that occur to the SQL Production databases that you might want to apply to your campus staging database. This will allow you the benefit of keeping your staging database schema in sync with the production database.

The SUE Login page can be found by selecting the following link: https://apps.sbctc.edu/SUE

After you receive your college's SUE User Name and password and log in, it is recommended to edit the contact information for your school. You can do this by selecting *Settings* option on the selection bar:

This selection will navigate you to the **Edit Contact Information** page where you can provide details for up to two contact persons for your college. This can include adding a contact name, email address and phone number.

- Updating the email address value will allow your college to receive automated responses if you need to have your SUE password reissued.

Support

Direct issues regarding the DSA-S to the SBCTC-ITD Service Desk:
- **Email:** SBCTC-ITD Service Desk (support@sbctc.edu)
- **Phone:** 425-803-9721