Data Pipeline: Efficiently Capturing State Education Data

About Data Pipeline

Data Pipeline is a critical component of the RISE (Relevant Information to Strengthen Education) system. Once fully implemented, Data Pipeline will move data more efficiently from districts to CDE, reducing redundancy, capturing on-going data submissions and allowing for easier exchange of information for transferred students. Replacing the Automated Data Exchange (ADE), Data Pipeline will reduce district data reporting from 19 point-in-time collections to six interchanges supporting on-going data submissions.

From: ADE Data Collection ▼	To: Data Pipeline Data Collection ▼
Data Frustration Cumbersome, redundant data collection process Point-In-Time Text-based files only	**Data Freedom** On-going data processing through interchanges Submit as often as you like Supports multiple file formats (Text, CSV, Excel) for submission and validation
Data Error Limited validations – reloading data dozens of time	**Cleaner Data** New simplified tools – i.e. *"format checker"* and file upload process saves time with cleaner data
Legacy System Out-dated technology, not scalable	**Robust System** Improves system capacity, reduces technology risk
Program Focused Data silos containing duplicate data	**Student – Educator Focused** Reduced duplicity
Heavy Financial Burden Processing data is expensive in time and resources	**Cost Efficient** Reduced data redundancy saves time and money

Data Pipeline ▼

- Is the foundation of all future data integration efforts and supports upcoming projects like the Teacher-Student Data Link (TSDL) and extensions to SchoolView project
- Modernizes the data collections process to reduce technology risk
- Allows for more system availability and ease of use
- Provides one common data collections platform

Data Pipeline is a secure, browser-based data reporting system
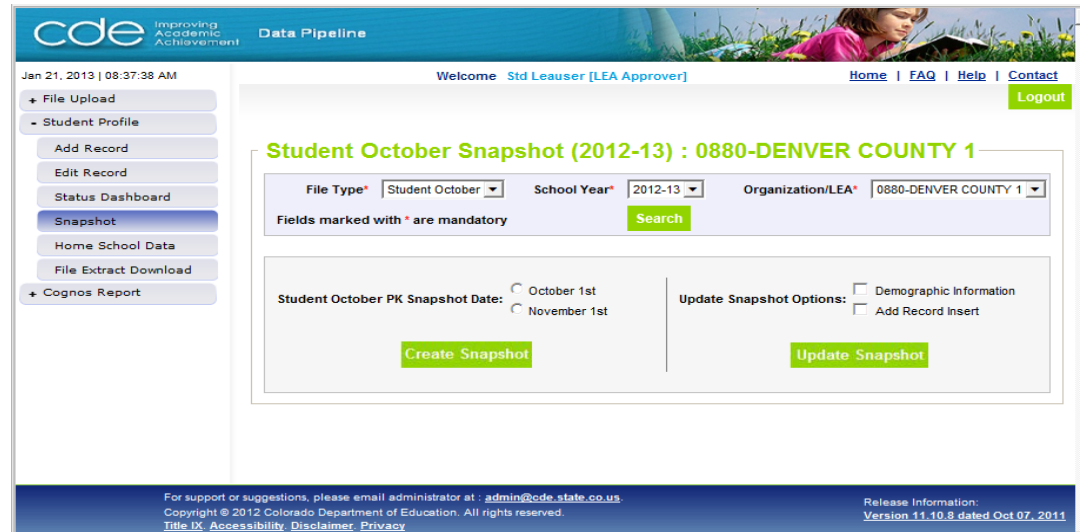
Validates data

Generates snapshots

Approves final data submissions

Enhances data security and student privacy via single-sign-on and local access management
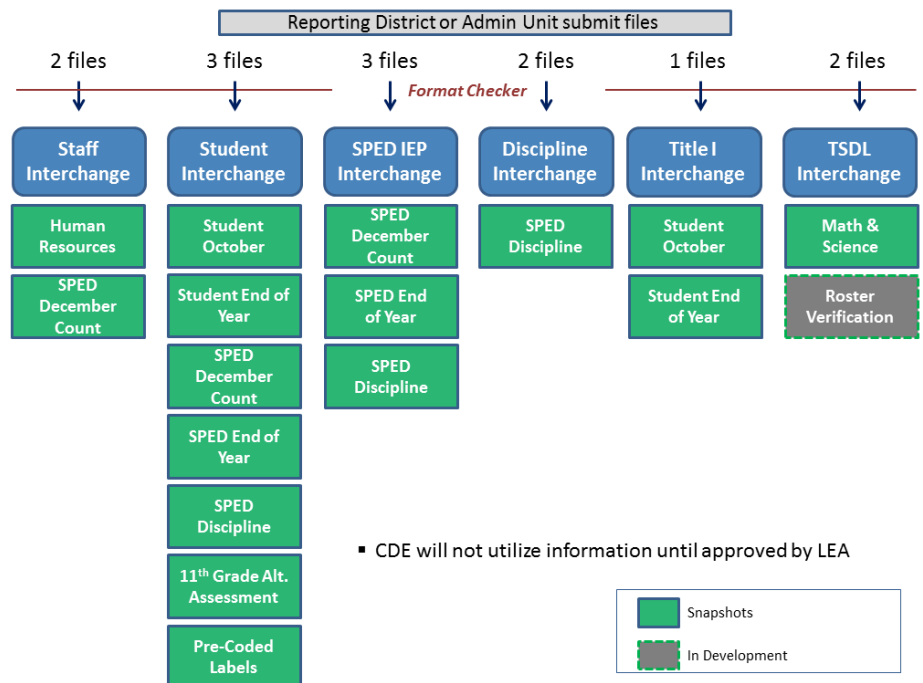
Data Pipeline URL
https://cdx.cde.state.co.us/pipeline

Data Pipeline Terminology and Process

Interchange – a data collection process which allows districts to submit data as often as they like

Snapshot –a query that pulls data from data already stored within various interchanges and periodic data files. Snapshots are not separate files to be loaded by districts. Once approved by the district, a snapshot can be used for formal reporting purposes

Year Round data – data that can be submitted anytime.

Periodic data – data that is submitted at one time during the year
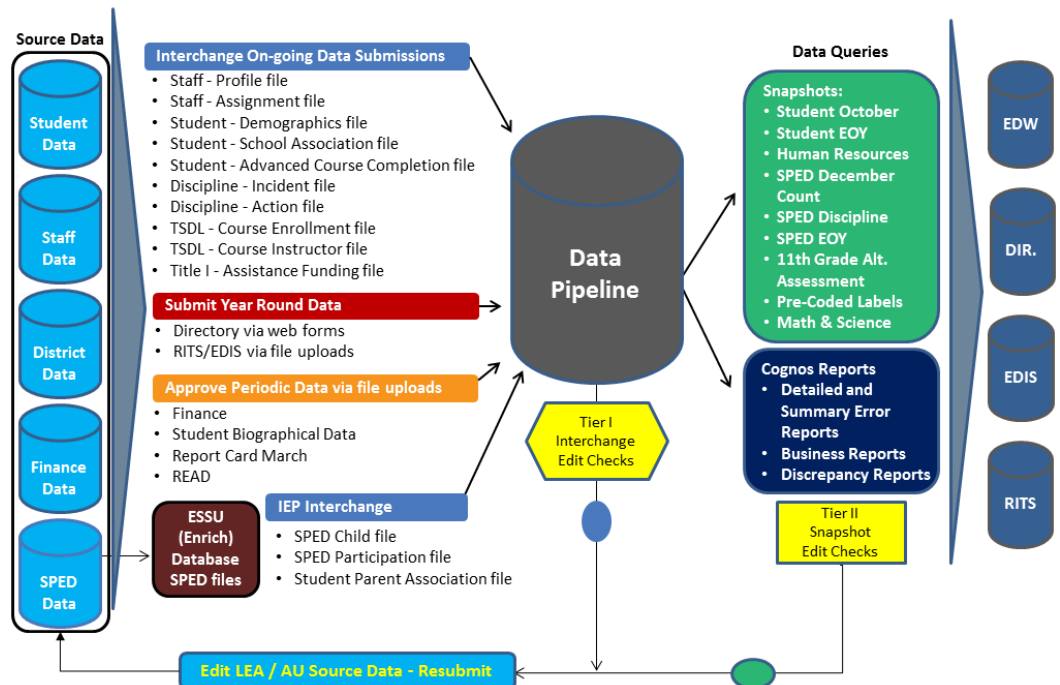

- CDE recommends 13 files be submitted on a monthly basis, including the IEP interchange, that are populated through ESSU Statewide Data Management System
- There are 16 files to be submitted if a district participates in the three Student Biographical Data (SBD) collections
- CDE recommends monthly interval submissions to reduce the edit time during collection timeframes
- Districts only need to correct the edits as needed for the snapshots

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Data Submissions Process Summary

The Data Pipeline **interchanges** are designed to accept student submission year around.

There is no window for submitting **year-round** data with a start and end date

All work within the **periodic collection** must be done within this specified time period. At the end of the collection the collection is closed and no modifications can be made until the following year.

New File Layouts

A user may upload Excel, CSV, or text files to most Data Pipeline collections, although CDE may configure this for each collection and therefore some collection may only allow a subset of these files for upload. When using Excel the file must be an .xls or .xlsx file. It's important to review and download the the new file layouts with your vendor. Follow this link to access the new file layouts http://www.cde.state.co.us/DataPipeline/index.asp

Getting Started with Data Pipeline

- Review your internal data collections process with your data teams
- Download and review the new Data Pipeline file layouts
- Contact your Local Access Manager (LAM) to gain user access to Data Pipeline

Each local education agency (LEA) user is assigned to a role:
- LEA User,
- LEA Approver, or
- LEA Viewer

The Colorado Department of Education Identity Management system (IDM) provides Local Education Agencies with a means of administering and maintaining user access to integrated CDE data systems, including Data Pipeline. When you log in using the CDE Single Sign-On (SSO) process, you will be able to access all of the CDE applications for which you are approved. Visit https://cdeapps.cde.state.co.us/index.html for more information.