

# ES3 Web Management System

## User's Manual

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EDFacts Shared State Solution



# ESP Solutions Group

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## Change History Log

Date	Pages	Summary of Changes	Version	Authorized By
20-Apr-2014	All	Initial Draft	v1.0	Steven King
02-Jun-2014		Added EDFacts Work Flow section, rearranged sections to follow work flow organization, and added sections for the new file due dates and file creation status reports	v1.01	Steven King
26-Feb-2015		Added descriptions of new features in version 1.1 <ul style="list-style-type: none"> <li>• Updated all screen shots to exclude the menu on the left so we don't have to update every screen shot as we add new features to the menu</li> <li>• Added SEA Directory Edit functionality</li> <li>• Added New LEA/School functionality</li> <li>• Added Export Staged Data functionality               <ul style="list-style-type: none"> <li>○ Added root export folder to State Configuration screen</li> </ul> </li> <li>• Added USED Validation reporting</li> <li>• Added Refresh button to SSIS Process Log page</li> </ul>	v1.1	Steven King
27-June-2016		Update the Welcome Screen and Main Menu screen shot. Figure 2	V1.1	Kathleen Browning
25-Feb-2022		Updated screens to reflect current modifications	V2.0	Mary Dever

## Table of Contents

Table of Contents .....	1
Table of Figures .....	3
Introduction .....	4
EDFacts Work Flow.....	7
Staging Data Review and Edit.....	8
SEA Directory .....	9
SEA General Info.....	9
SEA Chief School Officer Info.....	9
SEA Characteristics.....	9
LEA Directory.....	10
LEA and Charter Authorizer General Info.....	10
LEA Grades Offered .....	11
LEA Characteristics .....	12
School Directory .....	12
School General Info.....	12
School Grades Offered .....	13
School Characteristics.....	14
Export Staged Data .....	14
Configuration .....	16
Code Set Management.....	17
State Configuration.....	18
State Characteristics.....	19
Submission File Characteristics.....	20
Package Execution .....	21
Selecting a Package to Execute.....	21
Run-Time SSIS Package Configuration.....	22
Package Scheduling Results .....	23
Validation.....	23
Invalid Staging Records .....	24
USED Validation Reporting.....	24
USED Validation Rules Execution.....	25
USED Validation Rules Review .....	27
USED Validation Rule Error History .....	28
Management Reports .....	29
SSIS Package Log.....	30
SSIS Package Task Log .....	31
SQL Agent Job Status.....	33
SQL Agent Job Details.....	34
Email Log Review .....	35
Submission File Due Dates .....	36
Submission File Creation Status.....	37
Submission File Creation History .....	38

Submission Data Review ..... 39  
Export Submission Data..... 39

## Table of Figures

Figure 1: System Architecture Overview.....	4
Figure 2: Welcome Screen and Main Menu.....	5
Figure 3: EDFacts Work Flow Diagram.....	7
Figure 4: Data Review and Edit menu.....	8
Figure 5: State Education Agency Basic Info screen.....	9
Figure 6: SEA Chief School Officer Info screen.....	9
Figure 7: SEA Characteristics screen.....	9
Figure 8: LEA and/or Charter Authorizer Basic Info screen.....	10
Figure 9: Agency Type Drop Down Menu.....	10
Figure 10: Welcome Screen Link for Full-screen Reports.....	11
Figure 11: Add New LEA screen.....	11
Figure 12: LEA Grades Offered.....	11
Figure 13: LEA Characteristics Screen.....	12
Figure 14: School Basic Info Screen.....	12
Figure 15: Add New School screen.....	13
Figure 16: School Grades Offered Screen.....	13
Figure 17: School Characteristics Screen.....	14
Figure 18: Staging Table Contents Data Flow diagram.....	15
Figure 19: Export Staged Data screen.....	15
Figure 20: Export Staged Data results screen.....	16
Figure 21: Code Set Translation Edit screen.....	17
Figure 22: State Configuration Edit Screen.....	18
Figure 23: State Characteristics Edit Screen.....	19
Figure 24: Submission File Characteristics Screen.....	20
Figure 25: SSIS Package Execution menu.....	21
Figure 26: SSIS Package Runtime Configuration Screen.....	22
Figure 27: Package Execution Start Result Screen.....	23
Figure 28: Invalid Staging Records.....	24
Figure 29: USED Validation Execution Selection.....	25
Figure 30: USED Validation Reporting.....	25
Figure 31: USED Validation Results screen.....	26
Figure 32: USED Validation Results expanded.....	26
Figure 33: USED Validation Results -Rules Executed.....	27
Figure 34: USED Validation Rules Review.....	28
Figure 35: USED Validation Rule Error History.....	28
Figure 36: SSIS Package Log.....	30
Figure 37: Typical Submission Package SSIS Control Flow.....	31
Figure 38: SSIS Package Process Log Screen.....	32
Figure 39: SQL Agent Job Status screen.....	33
Figure 40: SQL Agent Job Status screen footer.....	33

Figure 41: SQL Agent Job Details Screen..... 34  
 Figure 42: Email Log Review Screen ..... 35  
 Figure 43: Submission File Due Dates..... 36  
 Figure 44: Submission File Creation Status ..... 37  
 Figure 45: Submission File History Screen ..... 38  
 Figure 46: Export Submission Screen..... 39  
 Figure 47: Populated Export Submission Screen..... 40

## Introduction

The EDFacts Shared State Solution (ES3) is a collaborative effort amongst states to coordinate and collaboratively build a common approach to building EDFacts files. ESP Solutions Group is the managing partner for the effort.

All states have to create files in a specified format for submission to the US Department of Education (ED). ES3 is a common approach for creating those files that attempts to maximize the shared code across states and to encapsulate state specific modifications and customizations.

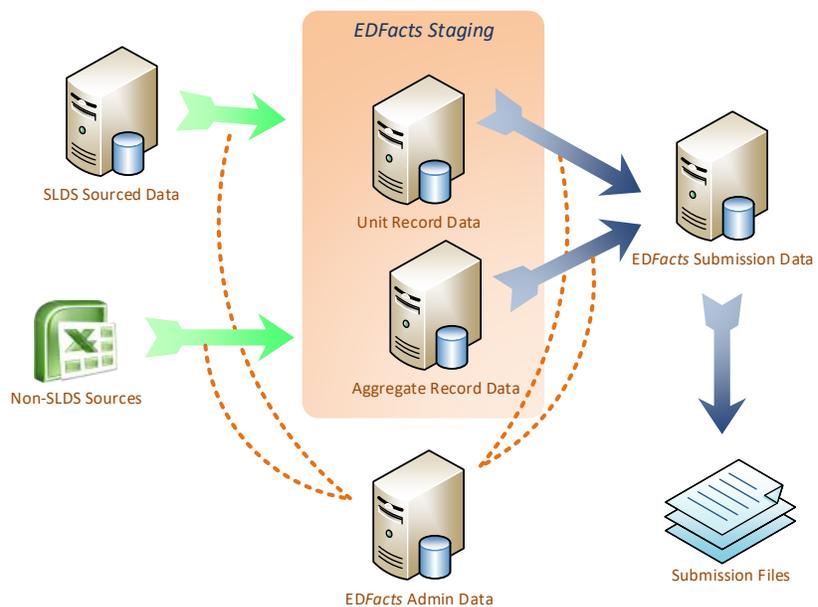


Figure 1: System Architecture Overview

The solution relies on the standard Microsoft SQL Server stack of applications.

State source data is read into a staging set of tables – the central box above and the left hand green arrows. The arrows in this diagram represent SQL Server Integration Services (SSIS) packages that perform the necessary Extract-Transform-Load (ETL) processes. These ETL processes are customized by necessity for each state partner.

The data are then moved to an EDFacts repository in the EDFacts format and the EDFacts submission files are generated and saved to a network folder. The right

hand blue arrow represent these SSIS ETL processes. These procedures are the same for all the state partners.

A set of tables in the EDFacts Admin Data repository hold state specific characteristics and customization data.

This document describes how to use the web management application that is built to allow an EDFacts Coordinator and designated program staff to manage this system.



Figure 2: Welcome Screen and Main Menu

The ES3 Web Management System application provides five high level functions as shown by the top level menu options.

- **Package Execution** – This allows a user to select, configure, and then execute one of the ETL processes (colored arrows from figure 1) in the system.
- **Staging Data Review** – This allows a user to add, review and edit SEA, LEA and School directory information and characteristics. This menu also has an option for exporting data from any of the ES3 staging tables to tab delimited files for review.
- **Validation** – This allows a user to access data validation reports. There is a report of staging records found to be invalid at the time a submission file creation was attempted. This also includes running of USED validation and business rules.
- **Configuration** – These options allow a user to review and modify the state specific characteristics and customizations needed for system operation.
- **Management Reports** – These options allow a user to review reports on what actions have been taken and the results of those actions

The ES3 Web Management System is a .NET Web Forms application installed on a state internal web server. System log-in procedures and security can be integrated with existing state web application environments. Thus, access to the application and the log-in process required varies by state.

# EDFacts Work Flow

The figure below shows the basic EDFacts file creation workflow.

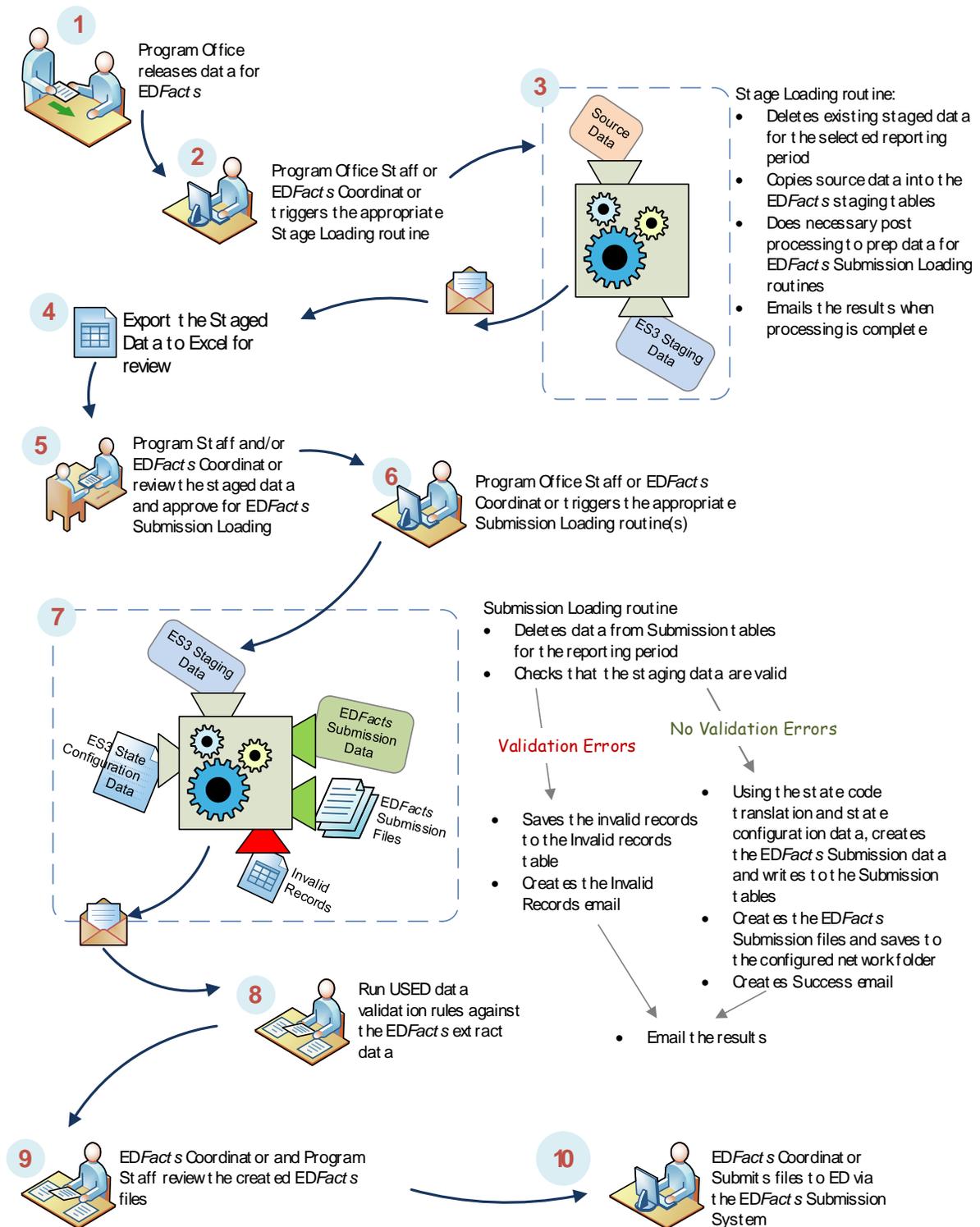


Figure 3: EDFacts Work Flow Diagram

## Staging Data Review and Edit

ES3 is designed to build the EDFacts files from staging tables that have a common structure for all the states. There are some fields that may be added to the staging table that are specific for a state, that are used during the staging process to populate or update the fields that are common.

The application now has a feature allowing users to export staged data to Excel for review. State EDFacts data selection and business rules are applied during the staging process. This export allows states to review what records have been selected and how they will be used for reporting to EDFacts.

SEA, LEA, and School Directory tables can be edited directly by the ES3 application. The LEA and School directories are the first files submitted for an EDFacts reporting cycle. The data are central to the submission file creation process for many of the files.

Directory information for the SEA, LEAs and Schools is broken into three sections: general and contact information, grades offered, and additional characteristics. Each has its own data review and edit screen accessible from the main menu.

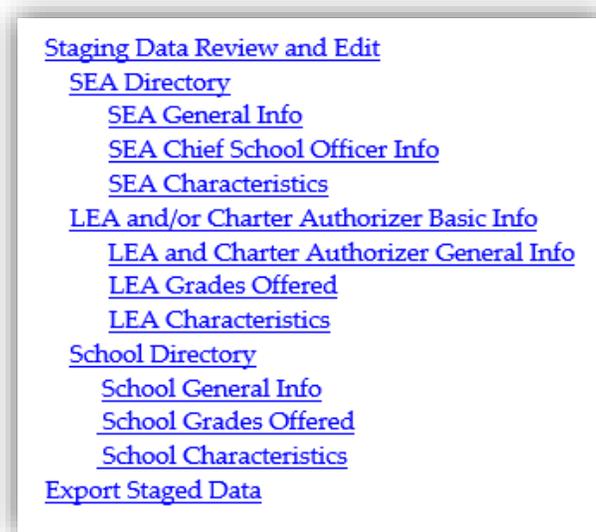


Figure 4: Data Review and Edit menu

## SEA Directory

### SEA General Info



Figure 5: State Education Agency Basic Info screen

### SEA Chief School Officer Info



Figure 6: SEA Chief School Officer Info screen

### SEA Characteristics



Figure 7: SEA Characteristics screen

Clicking on the [Edit](#) link at the far left of any line allows the user to edit the individual fields. The link [Edit](#) changes to two links [Update](#) [Cancel](#). When the revised data for an agency are corrected, click [Update](#) to save the changes, or click [Cancel](#) to discard any edits.

## LEA Directory

### LEA and Charter Authorizer General Info

The LEA and Charter Authorizer General Info link brings up the LEA and/or Charter Authorizer Basic Info screen.

The screenshot shows the 'LEA and Charter Authorizer General Info' screen. At the top, there are two dropdown menus: 'Select School Year: 2020-2021' and 'Agency Types to Show: All Agencies'. Below these are two links: '[ Add New LEA ]' and '[ Delete an LEA ]'. The main part of the screen is a table with the following columns: LEA Name, State LEA Identifier, NCES ID, LEA Type, Charter Authorizer Type, Operational Status, Supervisory Union, Mailing Address Line 1, Line 2, Line 3, City, State, Zip, Zip+4, Location Address Line 1, Line 2, Line 3, City, State, Zip, Zip+4, Out Of State LEA, phone, and Web Site Address. The table contains four rows of data for LA GRANGE ISD, MARBLE FALLS ISD, MUSTANG RIDGE ISD, and SMITHVILLE ISD.

LEA Name	State LEA Identifier	NCES ID	LEA Type	Charter Authorizer Type	Operational Status	Supervisory Union	Mailing Address Line 1	Line 2	Line 3	City	State	Zip	Zip+4	Location Address Line 1	Line 2	Line 3	City	State	Zip	Zip+4	Out Of State LEA	phone	Web Site Address
<a href="#">Edit</a> LA GRANGE ISD	030	4834967	1		1		1501 PLUM CHURCH RD			LA GRANGE	TX	78945	5824	1501 PLUM CHURCH RD			LA GRANGE	TX	78945	5824	<input type="checkbox"/>		www.la-grange-isd.edu
<a href="#">Edit</a> MARBLE FALLS ISD	020	4823456	1		1		1010 KINGSWOOD DR			MARBLE FALLS	TX	78654	1340	1010 KINGSWOOD DR			MARBLE FALLS	TX	78654	1340	<input type="checkbox"/>		www.marble-falls-isd.edu
<a href="#">Edit</a> MUSTANG RIDGE ISD	040	4845678	1		1		8775 OLD LOCKHART RD			MUSTANG RIDGE	TX	78810	3012	8775 OLD LOCKHART RD			MUSTANG RIDGE	TX	78810	3012	<input type="checkbox"/>		www.mustang-ridge-isd.edu
<a href="#">Edit</a> SMITHVILLE ISD	010	4812345	1		1		704 GAZLEY ST			SMITHVILLE	TX	78957	3301	704 GAZLEY ST			SMITHVILLE	TX	78957	3301	<input type="checkbox"/>		www.smithville-isd.edu

Figure 8: LEA and/or Charter Authorizer Basic Info screen

This screen shows the basic identification and contact information for LEAs and Charter Authorizers in the state.

Charter Authorizers were new starting in the 2013-2014 school year, but the information needed for file 190 is similar to the directory information required on LEAs in file 029. ES3 stores the data for both of these files in the LEADirectory staging table.

A user selects the school year (reporting period) that they wish to review from the school year pick list.

A user can review All Agencies, LEAs Only, or the Charter Authorizers Only.

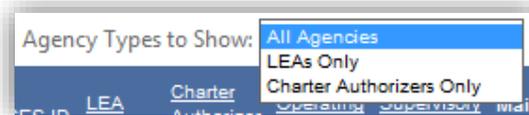


Figure 9: Agency Type Drop Down Menu

Clicking on the [Edit](#) link at the far left of any line allows the user to edit the individual fields for the selected agency. The link [Edit](#) changes to two links

[Update](#) [Cancel](#). When the revised data for an agency are corrected, click [Update](#) to save the changes, or click [Cancel](#) to discard any edits.

Click any of the underlined column titles to sort the agency records by that value.

Use the [Home](#) link at the left on the title bar to return to the Welcome screen and main menu.

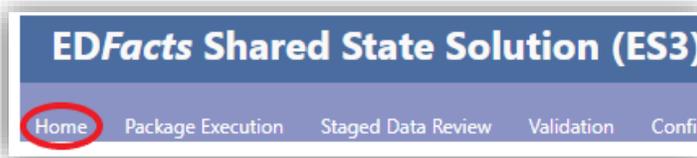


Figure 10: Welcome Screen Link for Full-screen Reports



Figure 11: Add New LEA screen

### LEA Grades Offered

Selecting LEA Grades Offered from the main menu brings up the following screen.

LEA Name	PK	KG	1	2	3	4	5	6	7	8	9	10	11	12	13	AE	UG
<a href="#">Edit</a> LA GRANGE ISD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>													
<a href="#">Edit</a> MARBLE FALLS ISD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>													
<a href="#">Edit</a> MUSTANG RIDGE ISD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>													
<a href="#">Edit</a> SMITHVILLE ISD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>													

Figure 12: LEA Grades Offered

This screen shows all the LEAs for the selected school year. It has a check for each grades offered by that LEA. Click the [Edit](#) button to make changes.

Click the underlined title text at the top of the LEA Name column to sort the agencies by the selected column.

## LEA Characteristics

ES3 uses the LEADirectory staging table to hold information beyond that required for 029 or 039. We've already seen this table is also used for 190 – Charter Authorizers. The LEA Characteristics screen shows other characteristics that are stored and referenced in this staging table.

State LEA Identifier	LEA Name	AYP Status	Alternate Approach Status	Charter LEA Status	Improvement Status	LEP Language Progress (AMAO I)	LEP ELP Attainment (AMAO II)	LEP Academic Achievement (AMAO III)	McKinney-Vento Subgrantee?	REAP Alternative Funding	Title III Subgrantee?	Title III Consortia Name	Parental Involvement Reservation	Immigrant Program Participant?
<a href="#">Edit</a> 030	LA GRANGE ISD			N					<input type="checkbox"/>		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
<a href="#">Edit</a> 020	MARBLE FALLS ISD			N					<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>
<a href="#">Edit</a> 040	MUSTANG RIDGE ISD			N					<input type="checkbox"/>		<input type="checkbox"/>			<input checked="" type="checkbox"/>
<a href="#">Edit</a> 010	SMITHVILLE ISD			N					<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>

Figure 13: LEA Characteristics Screen

Many of these characteristics may only apply to a handful of LEAs, McKinney-Vento Sub-grantee, for example. This screen makes it easy to quickly edit that handful of records.

## School Directory

### School General Info

The main School Directory edit screen includes the core identification and contact information on schools.

By default, the screen comes up showing the most current school year and all districts. Users can use the “Select District (LEA)” drop down to restrict the school list to a specific LEA.

School Name	State LEA Identifier	State School Identifier	NCEES LEA ID	NCEES School ID	School Type	Operational Status	Mailing Address Line 1	Line 2	Line 3	City	State	Zip	Zip+4	Location Address Line 1	Line 2	Line 3	City	State	Zip	Zip+4	Out Of State School	phone	Web Site Address
<a href="#">Edit</a> PS 0100	010	0100	4812345	01001	1	1	1700 SE 4TH ST			78957 TX	78957			1700 SE 4TH ST				TX	78957		<input type="checkbox"/>		www.smithville-isd.edu
<a href="#">Edit</a> PS 0110	010	0110	4812345	01002	1	1	1731 BRAZOS BEND AVE			78957 TX	78957			1731 BRAZOS BEND AVE				TX	78957		<input type="checkbox"/>		www.smithville-isd.edu
<a href="#">Edit</a> PS 0111	010	0111	4812345	01003	1	1	1724 RIVERCHASE AVE			78957 TX	78957			1724 RIVERCHASE AVE				TX	78957		<input type="checkbox"/>		www.smithville-isd.edu
<a href="#">Edit</a> PS 0200	020	0200	4823456	01004	1	1	1125 N US 281 STE 100			78854 TX	78854			1125 N US 281 STE 100				TX	78854		<input type="checkbox"/>		www.marble-falls-isd.edu
<a href="#">Edit</a> PS 0210	020	0210	4823456	01005	1	1	506 TURKEY TROT			78854 TX	78854			506 TURKEY TROT				TX	78854		<input type="checkbox"/>		www.marble-falls-isd.edu
<a href="#">Edit</a> PS 0211	020	0211	4823456	01006	1	1	818 ESPERANZA AVE			78854 TX	78854			818 ESPERANZA AVE				TX	78854		<input type="checkbox"/>		www.marble-falls-isd.edu
<a href="#">Edit</a> PS 0300	030	0300	4834567	01007	1	1	1735 OLD PLUM HWY			78945 TX	78945			1735 OLD PLUM HWY				TX	78945		<input type="checkbox"/>		www.la-grange-isd.edu

Figure 14: School Basic Info Screen

This screen behaves in a fashion similar to the LEA and/ Charter Authorizer Basic Info screen: click underlined column heads to sort by that column, use the [Edit](#) button to edit a particular record, and use the [Home](#) link to return to the Welcome screen.

State LEA Identifier	State School Identifier	School Name
030	0300	PS 0300
030	0310	PS 0310
030	0311	PS 0311

Figure 15: Add New School screen

### School Grades Offered

The School Grades Offered menu option leads to the following screen

State LEA Identifier	State School Identifier	School Name	School Number	PK	KG	1	2	3	4	5	6	7	8	9	10	11	12	AE	UG	Serves No Grade
<a href="#">Edit</a> 010	0100	PS 0100	010-0100	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<a href="#">Edit</a> 010	0110	PS 0110	010-0110	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<a href="#">Edit</a> 010	0111	PS 0111	010-0111	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							
<a href="#">Edit</a> 020	0200	PS 0200	020-0200	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<a href="#">Edit</a> 020	0210	PS 0210	020-0210	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<a href="#">Edit</a> 020	0211	PS 0211	020-0211	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
<a href="#">Edit</a> 030	0300	PS 0300	030-0300	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						

Figure 16: School Grades Offered Screen

Use the Select School Year drop down to select a specific school year. Use the Select District (LEA) drop down to select a specific LEA. Click any of the underlined column titles to sort the list by that column. Use the [Edit](#) button to edit the grades offered for a specific school.

When editing the grades offered for a particular school, the checkbox in the Serves No Grade column is disabled. This column gets set depending on if any of the other checkboxes are checked. That is, if no specific grade column is checked, then Serves No Grade becomes checked. Checking any specific grade for a school will result in the Serves No Grade column for that school becoming unchecked.

## School Characteristics

Selecting the School Characteristics menu option displays the following screen.

The screenshot shows the 'School Characteristics' screen. At the top, there are two dropdown menus: 'Select School Year: [2020-2021]' and 'Select District (LEA): [-Any District-]'. Below these is a table with the following columns: State LEA Identifier, State School Identifier, School Name, AYP Status, AYP by All Approach, Charter Status, Primary Charter Authorizer, Additional Charter Authorizer, Filed GESA Report, Improvement Status, Magnet Status, MIEP Funds Merited with Title I, National School Lunch Program Status, Persistently Dangerous?, Persistently Lowest Achieving?, Poverty Quartile, Reconstituted?, Reward School, Shared Time?, SIG School?, State Defined Status, Title I Eligible Program, Title I Program, Migrant Count, Truant Count, Virtual Status, and Include in EDFacts?. The table contains several rows of data, each with a blue 'Edit' link to its left.

Figure 17: School Characteristics Screen

ES3 stores school information in a SchoolDirectory staging table. As with the LEA information, there are additional school characteristics in this table beyond those needed for the EDFacts directory submissions. The School Characteristics screen gives access to those additional fields.

## Export Staged Data

The ES3 process, as noted above, is a two stage process: data are first staged into a set of ES3 staging tables, and then, secondly, are put into the EDFacts format.

State data selection rules and business rules for EDFacts are applied during the staging process. Most of the SSIS staging procedures are designed with a data selection step and then a post processing step.

The staging tables consist of a core set of fields that are common across all the ES3 states. The Submission Package procedures only refer to those common fields – that way the Submission Package procedures can be common for all ES3 states.

It is often the case that we will add state specific fields to a staging table. These fields are used during the Post Processing step and may be used to assist in setting values of the “core” staging table fields.

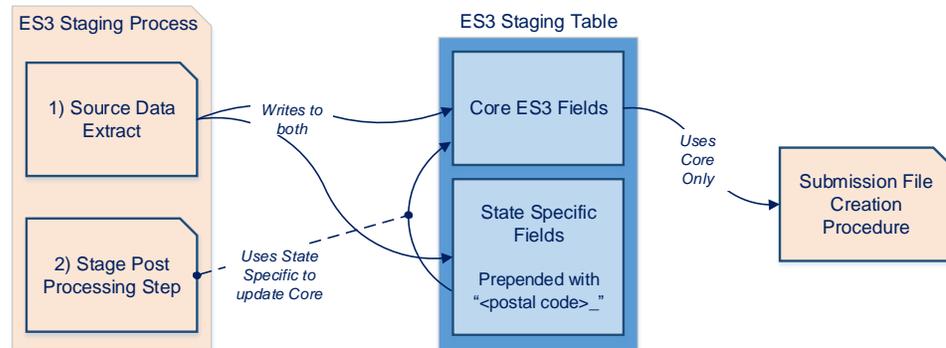


Figure 18: Staging Table Contents Data Flow diagram

For example, a state may have different “types” of student. The student type is used to determine where the student gets counted for membership. ES3 will stage the student type in a state specific field at the end of the Unit\_StudentDemographics staging table, and then use that information during the post-processing to set the accountable LEA or accountable School field values. Post-processing may also use this information to determine whether the student gets counted at all: the staging table includeInSEA, includeInLEA, and includeInSCH field values. The post-processing procedure will often make notes about why a particular record was treated the way it was.

Program staff need to know how ES3 handled the records in their program. This “Export Staged Data” capability allows staff to export the records from the ES3 staging tables so they can review which records got loaded and how they will be treated during the Submission File creation process.

Selecting the Export Staged Data menu option brings up the following screen:



Figure 19: Export Staged Data screen

The Staging table pick list is generated “on the fly” from any tables in the EDFacts\_Staging schema. The Reporting Period pick list is chosen from the reporting period defined in the State Configuration screen. The Export Location value comes from the “Export Directory Root Path” location on the State Configuration screen for the selected reporting period.

When the [Export] button is selected, the system reads the layout of the selected table and generates a header record from the column names. Then the system reads the data from the selected table for the selected reporting period/school year, and writes them out to the file.



Figure 20: Export Staged Data results screen

When complete, the screen will update with the number of records written and the location of the generated file.

The file name is the same as the selected table name with a “.tab” extension. If a file exists with that name, it will be overwritten. That is, a second export of data will erase a prior export. If you want to save or archive a particular export set, then simply move or rename the file before exporting again.

The number of lines written is a count of the header record and the count of data records. Therefore, it is always one more than the actual record count. If the line written value is 1, then there was no data in the table for the selected reporting period – only the header record was written.

To facilitate the usefulness of staging data to program staff for review and auditing, the staging tables retain the state code values. The translation to EDFacts codes occurs during the Submission file creation process. Data in the staging tables, and thus in the exported data file, should look familiar to program staff.

## Configuration

In order for the solution to work across multiple states easily, a significant effort has gone into extracting state customizations and configuration information into database tables. By making changes to those tables, the system is easily modified for a new state or school year.

There are four tables that hold all the configuration data:

- **StateCodeTranslation** – for each EDFacts option set and school year, this table holds the state codes and the EDFacts code to which it needs to translate.
- **StateConfig** – this table has a record for each school year and holds basic information about the state, such as the state name, state FIPS code, state

postal code, and the root folder where that school year's submission files should be stored.

- **StateCharacteristics** – this table holds any special flags or data that individual submission packages may require – typically information that state used EMAPS to tell ED. For example, the maximum age the state allows districts to classify special ed students with the DD disability.
- **SubmissionFileCharacteristics** – this table holds information on each of the submission files including the sub-folder to use for storing the submission files, and an optional password to use on the email attachments for that file

Each of these tables has a review and edit screen accessible from the main menu under the Configuration heading.

## Code Set Management

The Code Set Translation option brings up the following screen

	State Code	EDFacts Code	Description
<a href="#">Edit</a> <a href="#">Delete</a>	AUT	AUT	Autism
<a href="#">Edit</a> <a href="#">Delete</a>	DB	DB	Deaf-Blindness
<a href="#">Edit</a> <a href="#">Delete</a>	DD	DD	Developmental Delay
<a href="#">Edit</a> <a href="#">Delete</a>	EMN	EMN	Emotional Disturbance
<a href="#">Edit</a> <a href="#">Delete</a>	HI	HI	Hearing Impairments
<a href="#">Edit</a> <a href="#">Delete</a>	MD	MD	Multiple Disabilities
<a href="#">Edit</a> <a href="#">Delete</a>	MR	MR	Intellectual Disability
<a href="#">Edit</a> <a href="#">Delete</a>	OHI	OHI	Other Health Impairments
<a href="#">Edit</a> <a href="#">Delete</a>	OI	OI	Orthopedic Impairments
<a href="#">Edit</a> <a href="#">Delete</a>	SLD	SLD	Specific Learning Disabilities
<a href="#">Edit</a> <a href="#">Delete</a>	SLI	SLI	Speech or Language Impairments
<a href="#">Edit</a> <a href="#">Delete</a>	TBI	TBI	Traumatic Brain Injury
<a href="#">Edit</a> <a href="#">Delete</a>	VI	VI	Visual Impairments

[New Code Value](#)

Figure 21: Code Set Translation Edit screen

A particular code set can be found by selecting a school year and then the option set to review.

The list of current translations is shown in the table. In this example, that state codes for "Disability Category" are shown with the EDFacts equivalents.

Multiple state codes may translate to the same EDFacts code. Sometimes a state has code set values which are outside the EDFacts code set domain. In these cases, set the EDFacts code to the value "<ignore>".

This translation process allows ES3 to stage data with state codes, but have a uniform cross-state ETL process for generating the EDFacts Submission data. Staging data with state codes, facilitates easier stage data audit and review by state program staff.

## State Configuration

Selecting the State Configuration option brings up the following screen.

	Reporting Period	State Name	Postal Code	FIPS Code	Agency Number	Storage Directory Root Path	Export Directory Path	EMail Message From Line	Environment Name
<a href="#">Edit</a> <a href="#">Delete</a>	2021-2022	Texas	TX	48	01	C:\ES3\2021-2022	C:\ES3\2021-2022\Export	edfactsadmin@espsg.com	Demo
<a href="#">Edit</a> <a href="#">Delete</a>	2020-2021	Texas	TX	48	01	C:\ES3\2020-2021	C:\ES3\2020-2021\Export	edfactsadmin@espsg.com	Demo
<a href="#">Edit</a> <a href="#">Delete</a>	2019-2020	Texas	TX	48	01	C:\ES3\2019-2020	C:\ES3\2019-2020\Export	edfactsadmin@espsg.com	Demo
<a href="#">Edit</a> <a href="#">Delete</a>	2018-2019	Texas	TX	48	01	C:\ES3\2018-2019	C:\ES3\2018-2019\Export	edfactsadmin@espsg.com	Demo
<a href="#">Edit</a> <a href="#">Delete</a>	2017-2018	Texas	TX	48	01	C:\ES3\2017-2018	C:\ES3\2017-2018\Export	edfactsadmin@espsg.com	Demo
<a href="#">Edit</a> <a href="#">Delete</a>	2016-2017	Texas	TX	48	01	C:\ES3\2016-2017	C:\ES3\2016-2017\Export	edfactsadmin@espsg.com	Demo

[New State Configuration](#)

Figure 22: State Configuration Edit Screen

There is one record for each year in which the ES3 is in operation. Each record holds core state information such as the state name and postal code.

Each record also stores the full path to root folder where submission files for that school year are saved. This should be a path that is understood by the ETL package system account on the SSIS repository server (typically the database server).

In this example, a folder on the database server's C: drive is specified – that is not common nor recommended. UNC paths can be used and may be more reliable.

Lastly, these records store the "From:" email address that should be used in all the emails that the system generates. Each of the SSIS packages finish by generating and sending an email that summarizes the processing results. This entry tells those processes what email account should be used on the From: line of the emails. This account must have rights to send email through the email server that is used by the ES3.

## State Characteristics

Selecting the State Characteristics menu option brings up the following screen.

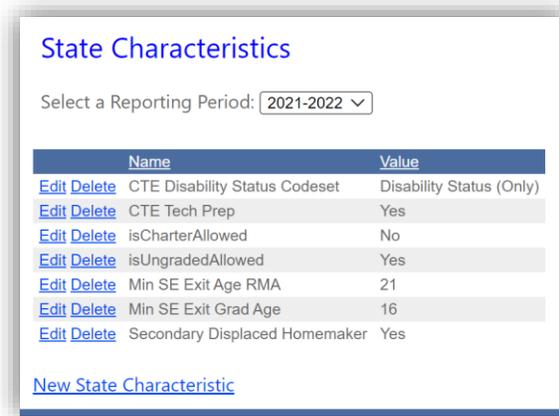


Figure 23: State Characteristics Edit Screen

Users can select the school year of interest; these characteristics can have different values in different school years.

The characteristics are name-value pairs that some of the SSIS packages reference as part of their processing. The names used are unique for a given school year. The packages that reference state characteristics are looking for specific names; that is, spelling is important.

The values also have specific ranges or data types that SSIS will expect. This screen does not have any data validation nor verification. Changes should be made with caution.

## Submission File Characteristics

Selecting the Submission File Characteristics option from the main menu brings up the following screen.

The screenshot shows the 'Submission File Characteristics' interface. At the top, there are two dropdown menus: 'Select a Reporting Period:' set to '2021-2022' and 'Select Specification Number:' set to '- Any Specification -'. Below these is a table with the following columns: Specification, report Level, header Record FileName, header Record File Type, data Record Table Name, file Subdirectory, and Invalid Records FileName. The table contains 30 rows of data, each with an 'Edit Delete' link on the left. The data includes various submission types such as LEA CHILDREN WITH DISABILITIES, SCHOOL DIRECTORY INFO, and SCHOOL DROPOUT.

Specification	report Level	header Record FileName	header Record File Type	data Record Table Name	file Subdirectory	Invalid Records FileName	
<a href="#">Edit</a> <a href="#">Delete</a>	S002	LEA	CWDBLIDEA	LEA CHILDREN WITH DISABILITIES	IDEADISAB	S002	Invalid S002 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S002	SCH	CWDBLIDEA	SCHOOL CHILDREN WITH DISABILITIES	IDEADISAB	S002	Invalid S002 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S002	SEA	CWDBLIDEA	SEA CHILDREN WITH DISABILITIES	IDEADISAB	S002	Invalid S002 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S005	LEA	CWDIDEADP	LEA CHILDREN WITH DISAB (IDEA) DISCIPLINE	CHDISDSP	S005	Invalid S005 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S005	SEA	CWDIDEADP	SEA CHILDREN WITH DISAB (IDEA) DISCIPLINE	CHDISDSP	S005	Invalid S005 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S006	LEA	CDIDEAMSE	LEA CHILDREN WITH DISAB (IDEA) MULTI SUSPEN EXPU	IDEASUSEXP	S006	Invalid S006 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S006	SEA	CDIDEAMSE	SEA CHILDREN WITH DISAB (IDEA) MULTI SUSPEN EXPU	IDEASUSEXP	S006	Invalid S006 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S007	LEA	CWDIDEARV	LEA CHILDREN WITH DISAB (IDEA) REMOVAL	IDEAREMOV	S007	Invalid S007 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S007	SEA	CWDIDEARV	SEA CHILDREN WITH DISAB (IDEA) REMOVAL	IDEAREMOV	S007	Invalid S007 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S009	LEA	CDIDEAESE	LEA CHILDREN WITH DISAB (IDEA) EXITING SPEC ED	IDEAEXITSPED	S009	Invalid S009 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S009	SEA	CDIDEAESE	SEA CHILDREN WITH DISAB (IDEA) EXITING SPEC ED	IDEAEXITSPED	S009	Invalid S009 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S029_LEA	LEA	DIRECTORY	LEA DIRECTORY INFO		S029	Invalid S029_LEA Records
<a href="#">Edit</a> <a href="#">Delete</a>	S029_SCH	SCH	DIRECTORY	SCHOOL DIRECTORY INFO		S029	Invalid S029_SCH Records
<a href="#">Edit</a> <a href="#">Delete</a>	S029_SEA	SEA	DIRECTORY	SEA DIRECTORY INFO		S029	Invalid S029_SEA Records
<a href="#">Edit</a> <a href="#">Delete</a>	S032	LEA	DROPOUCNT	SEA DROPOUT	DROPOUCNT	S032	Invalid S032 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S032	SCH	DROPOUCNT	SCHOOL DROPOUT	DROPOUCNT	S032	Invalid S032 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S032	SEA	DROPOUCNT	SEA DROPOUT	DROPOUCNT	S032	Invalid S032 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S033	SCH	PRICLNCH	SCHOOL FREE AND REDUCED PRICE LUNCH	Multiple	S033	Invalid S033 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S035	SEA	FEDPROOFF	SEA FEDERAL PROGRAMS	FEDPROG	S035	Invalid S035 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S036	LEA	STUTRGASS	LEA TARGETED ASSISTANCE PROGS STUDENT PART	TRGTASSPROGPART	S036	Invalid S036 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S036	SEA	STUTRGASS	SEA TARGETED ASSISTANCE PROGS STUDENT PART	TRGTASSPROGPART	S036	Invalid S036 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S037	LEA	STUTTLONE	LEA TITLE I STUDENT PARTICIPATION	TITLEIPART	S037	Invalid S037 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S037	SEA	STUTTLONE	SEA TITLE I STUDENT PARTICIPATION	TITLEIPART	S037	Invalid S037 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S039	LEA	GRADESOFF	LEA GRADES OFFERED		S039	Invalid S039 Records
<a href="#">Edit</a> <a href="#">Delete</a>	S039	SCH	GRADESOFF	SCHOOL GRADES OFFERED		S039	Invalid S039 Records

Figure 24: Submission File Characteristics Screen

Users can select specific school years, and optionally specific submission numbers.

Each submission should have a row in this table. That is, if a submission is reported at all three levels – SEA, LEA and School – then there will be three records in this table.

The first five columns have the data specified in the EDFacts submission documentation and should not require modification.

The last two columns store:

- File Subdirectory – the subdirectory into which this submission file should be saved. This subdirectory is relative to the root directory specified the state configuration for the given school year.
- Invalid Records File Name – if during the submission file creation process validation errors were detected, then what name should go on the file that will store those errors. This file will be save into the subdirectory specified above. Typical validation errors include staged records where a state code cannot be found in the code set translation, or a necessary code set is missing altogether.

## Package Execution

Package Execution is the core function of the ES3. The ES3 Web Management System gives a user the capability of:

- 1) seeing what SSIS packages have been deployed to the package store
- 2) selecting a package for execution
- 3) setting runtime configuration values
- 4) executing the package

Traditionally, SSIS ETL processes are built to either run on a regular recurring schedule or built for database administrators to run for within database management tools. The ES3 Web Management System lets *EDFacts* coordinators and selected program staff run these without requiring them to have expensive tools nor learn their operation.

### Selecting a Package to Execute

ES3 ETL packages are deployed to an SSIS package repository on the *EDFacts* database server. As in a file system, this repository can be organized into folders and subfolders. All the ES3 packages are stored in an “EDFacts” folder in the repository. This prevents the ES3 Web Management System from exposing non-ES3 SSIS jobs.

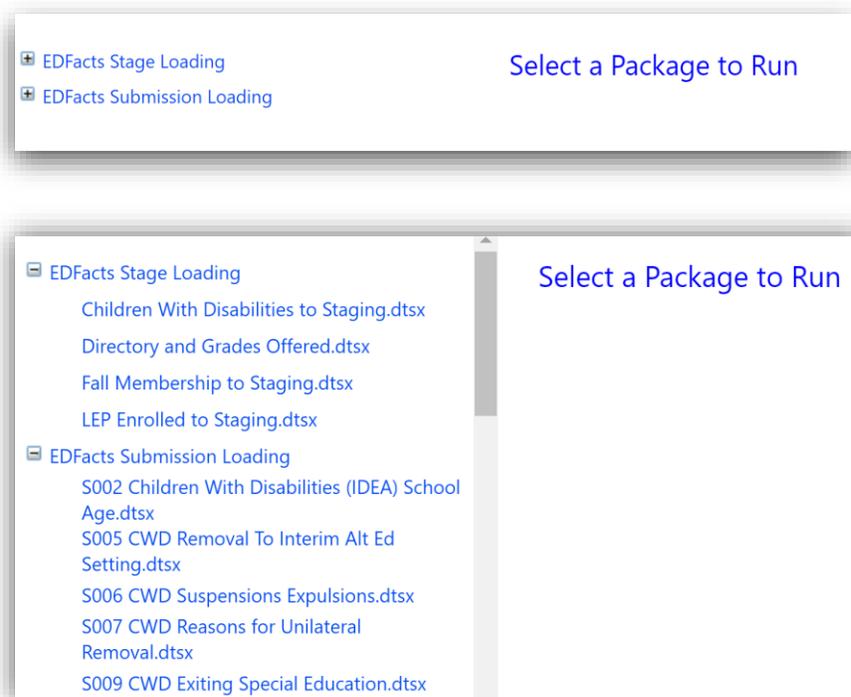


Figure 25: SSIS Package Execution menu

By default, the EDFacts folder contains a “Stage Loading” and a “Submission Loading” folders. All the ES3 packages are deployed into these two folders as appropriate. This folder structure can be modified, but the web app can deal with any organization scheme as long as “EDFacts” is the root folder for all ES3 SSIS packages.

In the example above, the two subfolders have been expanded to display their full contents. To run a package, simply click on its name.

## Run-Time SSIS Package Configuration

When a package is stored, certain package variables are set to be editable at runtime. These settings are grouped into “package configurations.” When a package is selected to be executed, the web app reads the package configuration and displays the editable settings.

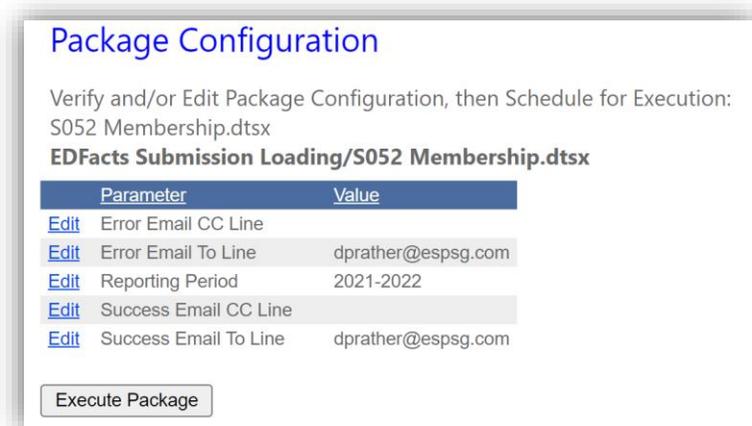


Figure 26: SSIS Package Runtime Configuration Screen

In this example, the package for the S052 Membership file has been selected.

Almost all of the submission file loading routines expose these five settings. There are four values for setting email recipients, and then the core setting for ReportingPeriod. In this case, the user had clicked the [Edit](#) link and had selecting the dropdown value for the Reporting Period of '2021-2022'. When [Update](#) is clicked then that new value will be saved and used by the next execution of the S052 Membership package.

If the configuration settings are acceptable, then click the [Execute Package] button to start the process.

## Package Scheduling Results

When the [Execute Package] button is clicked, the ES3 Web Management System does several things.

- 1) Create a SQL Server Agent job with the same name as the SSIS Package
- 2) Add 1 step to that job of running our SSIS Package
- 3) Set other settings to get the job ready
- 4) Schedule the job to run immediately

The result of these steps will be displayed on a screen like the following

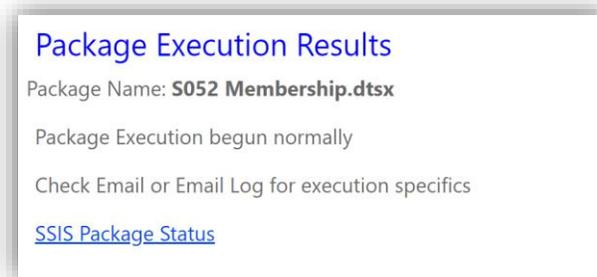


Figure 27: Package Execution Start Result Screen

It is important to note, this just means a job was successfully created and scheduled to run. It does not mean the package execution is complete nor that the job ran successfully.

If there was a problem in trying to create the SQL Agent job, then that information will be displayed on this screen.

Typical issues include things like trying to schedule a new job before a current job is complete.

The SSIS Package Execution Log monitoring and SQL Agent Job History screens are used to follow the actual package execution steps and results. These are explained in detail in the next section.

## Validation

ES3 includes procedures that validate system data in relation to EDFacts requirements. There are two types of validations in ES3: Staging Data Validation and USED Validation.

Staging Data Validation occurs during the Submission File Creation process. This validation ensures that ES3 can translate staged data correctly to EDFacts format. For example, that a particular code in the staged data for a field is

defined in the appropriate code set translation table. Records that fail this validation prevent a submission file from being generated by ES3.

EDFacts coordinators are all well-aware that USED has their own set of business rules that they apply to submitted files each night – generating error reports the following day. This overnight turn-over can be frustrating at crunch –time. ES3 has begun the implementation of the USED business rules reporting, allowing a user to see relatively quickly what USED would be telling them tomorrow.

## Invalid Staging Records

In the process of creating the submission files, the data in the staging tables are validated. Typically there are two types of tests, both related to the translation of codes from state options to those to be required by EDFacts.

As part of validation process, ES3 needs entries in the State Code Set Translation table for the various options. The first test is that the necessary code set tables exist. The second test is that the state codes in each record of the staged data have matching entries in the code set.

Error	Affected Record Count
Invalid option for [Educational Environment (IDEA) SA] of [<null>]	255
Invalid option for [LEP Status (Both)] of [<null>]	19

Figure 28: Invalid Staging Records

Use the pick lists to filter results. Users can filter by reporting period, submission file, and/or type of validation error found. Pick lists to the right depend on choices in pick lists to the left.

This report only includes records in the underlying invalid records table. That table is only populated as part of the Submission File loading routines.

That means, if you are looking for errors for a particular submission file, and the file is not listed in the “Submission File” pick list, then either you have not attempted to create the submission file, or no validation errors were found.

If validation errors are found, the submission files will NOT be created.

## USED Validation Reporting

Note: Not all of the USED business rules have been implemented. Only those rules that have been implemented can be applied, but the

system is designed in such a way that as rules are implemented they will show up without the need for Web App updates.

### USED Validation Rules Execution

The USED Validation Reporting process runs against the EDFacts Submission file data stored in the ES3 Submission File tables. That means, the submission file creation process must be run prior to running the USED Validation Reporting process.

Select Validation -> USED Validation Reporting -> USED Validation Rules Execution to execute the validation rules.

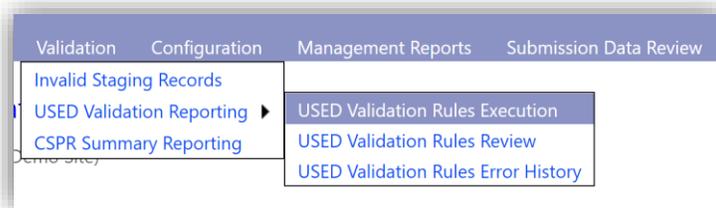


Figure 29: USED Validation Execution Selection

When the USED Validation Rules Execution menu option is selected, a screen like the following appears.



Figure 30: USED Validation Reporting

The list of Submission File numbers that are available is generated “on the fly” from validation stored procedures that have been deployed. That means as new submission file rule sets come on line, they will appear in this interface.

A rule set stored procedure consists of calls to the individual rule procedures that have been defined. Not all of the rules that USED applies to a given file have been written at this time, so rule set for a given file may not include all of the rules USED will apply.

The school year list come from the values defined in the State Configuration screen. It is possible to attempt to run rules for a file and year combination that have not yet been generated.

When the [Execute Validation] button is selected, then the system calls the stored procedure that runs the rules for that file. The results from the individual rules

are stored in a table. At the end of processing, a report like the following is shown.

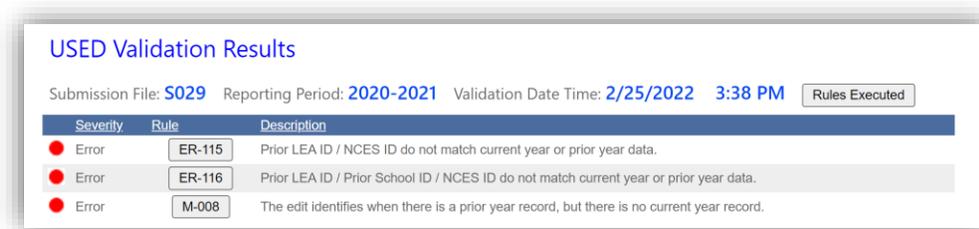


Figure 31: USED Validation Results screen

This report shows:

- **Severity:** The level of severity of the rule violated, Error with a red dot or Warning with a yellow dot
- **Rule Number:** the USED rule number as found in the EDFacts Business Rules spreadsheet
- **Description:** the description of the problem, again from the EDFacts Business Rules spreadsheet

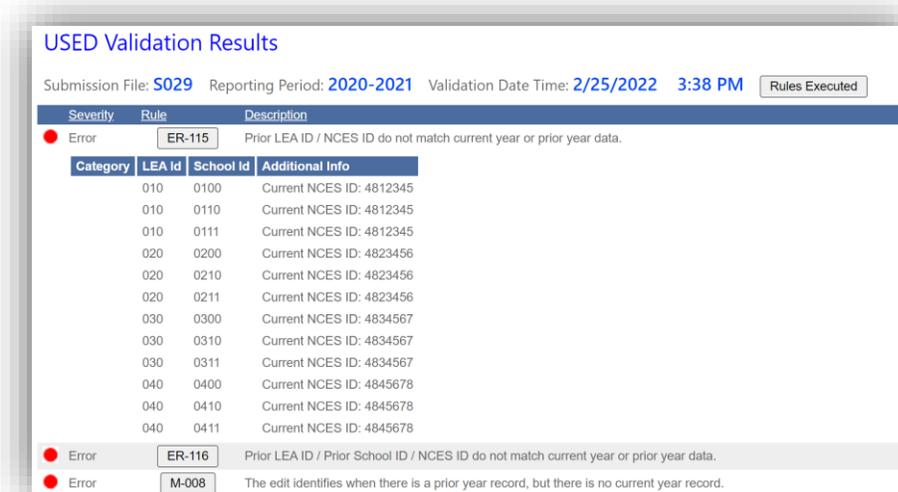


Figure 32: USED Validation Results expanded

Selecting the rule will give additional information on errors for that rule.

- **Category Set:** The category set/sub-total group in the file that is associated with the violation
- **SEA:** the text "SEA" if the offending record is a state level record

- **LEA Identifier:** the state identifier of the LEA if the offending record is an LEA level or school level record
- **School Identifier:** the state school identifier if the offending record is an school level record. The LEA identifier will also be supplied to assist in finding the offending record in the submission file
- **Additional Information:** We are making every effort to supply additional information for the violated rules that shows exactly what is wrong, why it is wrong, and in some cases what to do to correct the issue.

The rules that were executed can be viewed by selecting 'Rules Executed' in figure 30A. This will bring up a list of all the USED rules that were executed. To return to the validation results, select 'Validation Results' from the USED Rules Implemented and Executed screen.

Rule Identifier	Error Message
ER-103	File submission includes multiple rows of data for the same educational unit.
ER-104	File submission includes duplicate prior ID values of <Error Param1>.
ER-105	Prior State ID <Parm1> matches another State ID in the file submission.
ER-106	NCES ID is blank for a record where the Prior ID is not blank.
ER-107	NCES ID is blank and the submitted School Year Start Operational Status is not New, Added or Future.
ER-108	NCES ID is blank and the existing School Year Start Operational Status is not New, Added or Future.
ER-109	NCES ID is blank; educational unit is New, Added or Future; no match with current year data; positive match with prior year data.
ER-110	NCES ID not matched with current year or prior year data (OPSTATUS 1-7 only).
ER-111	Prior State ID matches current year data, but NCES ID does not.
ER-112	Prior State ID matches prior year data, but NCES ID does not.
ER-113	Prior State ID does not match current year or prior year data.
ER-114	NCES ID is blank for a record where the Prior LEA ID is not blank.
ER-115	Prior LEA ID / NCES ID do not match current year or prior year data.
ER-116	Prior LEA ID / Prior School ID / NCES ID do not match current year or prior year data.
ER-119	The submitted Supervisory Union ID for the SU or RESA is not unique within the state.
ER-121	NCES ID w/OPSTATUS 8 must = NCES ID that was previously closed.
ER-131	The operational status change from <%operational status from PY%> to <%SY operational status from CY%> for <LEA/School> is invalid. Please revise.

Figure 33: USED Validation Results -Rules Executed

### USED Validation Rules Review

The USED Validation Rules Review list all the validation rules that are defined for the EDFacts Submission file. Selecting the Reporting Period and Submission File number will list all the ES3 defined USED validation rules for that file submission. Clicking a column title will sort the screen by that value.

### USED Validation Rules Review

Select a Reporting Period:  Select a submission file:

Submission	Rule ID	ES3 Procedure Name	Error Message	Error Type	General Edit	Severity	Year To Year	SEA	LEA	SCH	First ESS Release	Begin Reporting Period	End Reporting Period	Additional File 1	Additional File 2	Additional File 3
S052	ER-103	efbr_S052_ER_103	File submission includes multiple rows of data for the same educational unit.	Validation	YES	Error	NO	YES	YES	YES	Release 5.0	2000-2001	9998-9999			
S052	S052-R00	efbr_S052_R00	Submission file has not been created.	Submission	YES	Error	NO	YES	NO	NO	Release 6.0	2017-2018	9998-9999			
S052	S052-R52	efbr_S052_R52	Student to teacher ratio is more than 50:1 or less than 5:1.	Submission	NO	Warning	NO	NO	YES	NO	Release 4.0	2000-2001	9998-9999	S052		
S052	S052-R55	efbr_S052_R55	Student teacher ratio is less than 5 or greater than 50.	Submission	NO	Warning	NO	NO	NO	YES	Release 4.0	2000-2001	9998-9999	S052	S029	S129
S052	S052-R61	efbr_S052_R61	Membership file includes a non-zero student count while Classroom Teachers (FTE) (NXX059) is zero or has not been submitted.	Submission	NO	Error	NO	NO	NO	YES	Release 4.0	2000-2001	9998-9999	S052		
S052	S052-R63	efbr_S052_R63	Student teacher ratio compared to prior year has changed by 30% or more.	Submission	NO	Warning	YES	NO	NO	YES	Release 4.0	2000-2001	9998-9999	S052		
S052	S052-R64	efbr_S052_R64	Student teacher ratio is less than 10:1 for the current year and greater than 15:1 for the prior year.	Submission	NO	Warning	YES	NO	NO	YES	Release 4.0	2000-2001	9998-9999	S052		

Figure 34: USED Validation Rules Review

### USED Validation Rule Error History

The USED Validation Rule Error History shows the warnings and errors associated with the latest run of the USED Validation rules for the Reporting Period and Submission File selected. list all the validation rules that are defined for the EDFacts Submission file. Clicking a column title will sort the screen by that value.

### USED Validation Rule Error History

Select a Reporting Period:  Select a submission file:

Reporting Period	Submission Number	Rule Number	Severity	SEA Identifier	State LEA Identifier	State School Identifier	Category Sort Order	Error Description	Additional Info	Execution Time
2019-2020	S089	S089-R32	Error	SEA				One or more Educational Environments identified through EMAPS as permitted for all age children in your state was not reported.	Educational Environment H	7/7/2021 9:59:53 AM
2019-2020	S089	S089-R32	Error	SEA				One or more Educational Environments identified through EMAPS as permitted for all age children in your state was not reported.	Educational Environment REC09YOTHLOC	7/7/2021 9:59:53 AM
2019-2020	S089	S089-R32	Error	SEA				One or more Educational Environments identified through EMAPS as permitted for all age children in your state was not reported.	Educational Environment REC09YSVCS	7/7/2021 9:59:53 AM
2019-2020	S089	S089-R32	Error	SEA				One or more Educational Environments identified through EMAPS as permitted for all age children in your state was not reported.	Educational Environment REC10YOTHLOC	7/7/2021 9:59:53 AM
2019-2020	S089	S089-R32	Error	SEA				One or more Educational Environments identified through EMAPS as permitted for all age children in your state was not reported.	Educational Environment REC10YSVCS	7/7/2021 9:59:53 AM
2019-2020	S089	S089-R32	Error	SEA				One or more Educational Environments identified through EMAPS as permitted for all age children in your state was not reported.	Educational Environment RF	7/7/2021 9:59:53 AM
2019-2020	S089	S089-R32	Error	SEA				One or more Educational Environments identified through EMAPS as permitted for all age children in your state was not reported.	Educational Environment SC	7/7/2021 9:59:53 AM
2019-2020	S089	S089-R32	Error	SEA				One or more Educational Environments identified through EMAPS as permitted for all age children in your state was not reported.	Educational Environment SPL	7/7/2021 9:59:53 AM
2019-2020	S089	S089-R32	Error	SEA				One or more Educational Environments identified through EMAPS as permitted for all age children in your state was not reported.	Educational Environment SS	7/7/2021 9:59:53 AM

Figure 35: USED Validation Rule Error History

## Management Reports

The ES3 Web Management System includes a set of management reports screens. These screens allow the *EDFacts* coordinator to keep tabs on the results and status of the various processes of ES3. It includes screens for reviewing:

- **SSIS Package Log:** Lists the SSIS Package runs associated with the *EDFacts* Shared State Solution and the result of their last execution.
- **SSIS Package Task Log:** Lists all the tasks completed as part of the SSIS package execution.
- **SQL Agent Job Status:** history and detailed status results
- **Email Log Review:** All the emails generated and sent by the SSIS procedures.
- **SSIS Staging Package History:** complete logs of the staging SSIS package executions.
- **SSIS Submission Package History:** complete logs of the submission SSIS package executions.
- **Submission File Due Dates:** Lists due dates for file submissions.
- **Submission File Creation Status:** Shows *EDFacts* submission files by reporting period and whether a submission file has been created.
- **Submission File Creation History:** History review of the creation of *EDFacts* Submission Files

Each is described in more detail below.

## SSIS Package Log

The ES3 package log shows the latest staging or submission package executions. The run status, package name, start time, end time and duration are displayed. Click any of the underlined column titles to sort the agency records by that value. Carrots at the bottom of the screen allow scrolling through additional executions.

SSIS Package Log					
Run Status	Package Name	Start Date/Time	End Date/Time	Run Duration (hh:mm:ss)	
Error	S029-S039 LEA Directory and Grades Offered	3/11/2022 1:19:50 PM	3/11/2022 1:19:50 PM	00:00:00	
Error	S052 Membership	2/25/2022 3:29:56 PM	2/25/2022 3:29:56 PM	00:00:00	
Error	S029-S039 School Directory and Grades Offered	2/9/2022 11:44:12 AM	2/9/2022 11:44:12 AM	00:00:00	
Success	Directory and Grades Offered	2/9/2022 11:40:43 AM	2/9/2022 11:40:43 AM	00:00:00	
Error	S089 Children with Disabilities IDEA Early Childhood	9/3/2021 10:06:29 AM	9/3/2021 10:06:30 AM	00:00:01	
Success	Children With Disabilities to Staging	9/3/2021 9:55:33 AM	9/3/2021 9:55:33 AM	00:00:00	
Error	S002 Children With Disabilities IDEA School Age	7/16/2021 4:33:24 PM	7/16/2021 4:33:25 PM	00:00:01	
Success	Fall Membership to Staging	6/9/2021 11:46:44 AM	6/9/2021 11:46:44 AM	00:00:00	
Error	S007 CWD Reasons for Unilateral Removal	3/26/2021 2:03:55 PM	3/26/2021 2:03:56 PM	00:00:01	
Error	S118 Homeless Students Enrolled	10/2/2020 5:43:07 PM	10/2/2020 5:43:07 PM	00:00:00	
Error	S033 Free and Reduced Price Lunch	7/13/2020 11:14:10 AM	7/13/2020 11:14:10 AM	00:00:00	
Error	S005 CWD Removal To Interim Alt Ed Setting	7/9/2020 6:31:02 PM	7/9/2020 6:31:03 PM	00:00:00	
Success	LEP Enrolled to Staging	6/23/2020 11:20:11 AM	6/23/2020 11:20:11 AM	00:00:00	
Success	Fall Student Membership to Staging	5/13/2020 3:40:23 PM	5/13/2020 3:40:24 PM	00:00:00	
Success	S004 CWD Not Participating in Assessments	5/7/2020 1:35:00 PM	5/7/2020 1:35:00 PM	00:00:00	
Success	Basic Staff FTE Data Package Deployment	11/8/2019 10:04:56 AM	11/8/2019 10:04:56 AM	00:00:00	
Success	Basic Staff FTE Data	11/8/2019 9:14:39 AM	11/8/2019 9:14:39 AM	00:00:00	
Success	S059 Staff FTE	10/4/2019 10:58:04 AM	10/4/2019 10:58:04 AM	00:00:00	
Success	S029 SEA Directory	10/3/2019 10:10:08 PM	10/3/2019 10:10:08 PM	00:00:00	
Success	S032 Dropouts	10/3/2019 8:05:50 PM	10/3/2019 8:05:50 PM	00:00:00	
Success	S141 LEP Enrolled	6/5/2019 2:14:20 PM	6/5/2019 2:14:20 PM	00:00:00	
Error	S138 Title III LEP English Lang Proficiency Test	2/13/2019 3:03:00 PM	2/13/2019 3:04:45 PM	00:01:45	
Error	S137 LEP English Language Proficiency Test	2/13/2019 2:55:24 PM	2/13/2019 2:57:09 PM	00:01:45	
Error	S116 Title III LEP Students Served	2/13/2019 2:49:54 PM	2/13/2019 2:51:40 PM	00:01:45	
Error	S139 LEP English Language Proficiency Results	2/12/2019 4:29:48 PM	2/12/2019 4:31:33 PM	00:01:45	

> >>

Figure 36: SSIS Package Log

## SSIS Package Task Log

SQL Server Integration Services ETL packages consist of a set of tasks that can be organized into “control flows.” All of the submission loading SSIS packages have a control flow similar to the following.

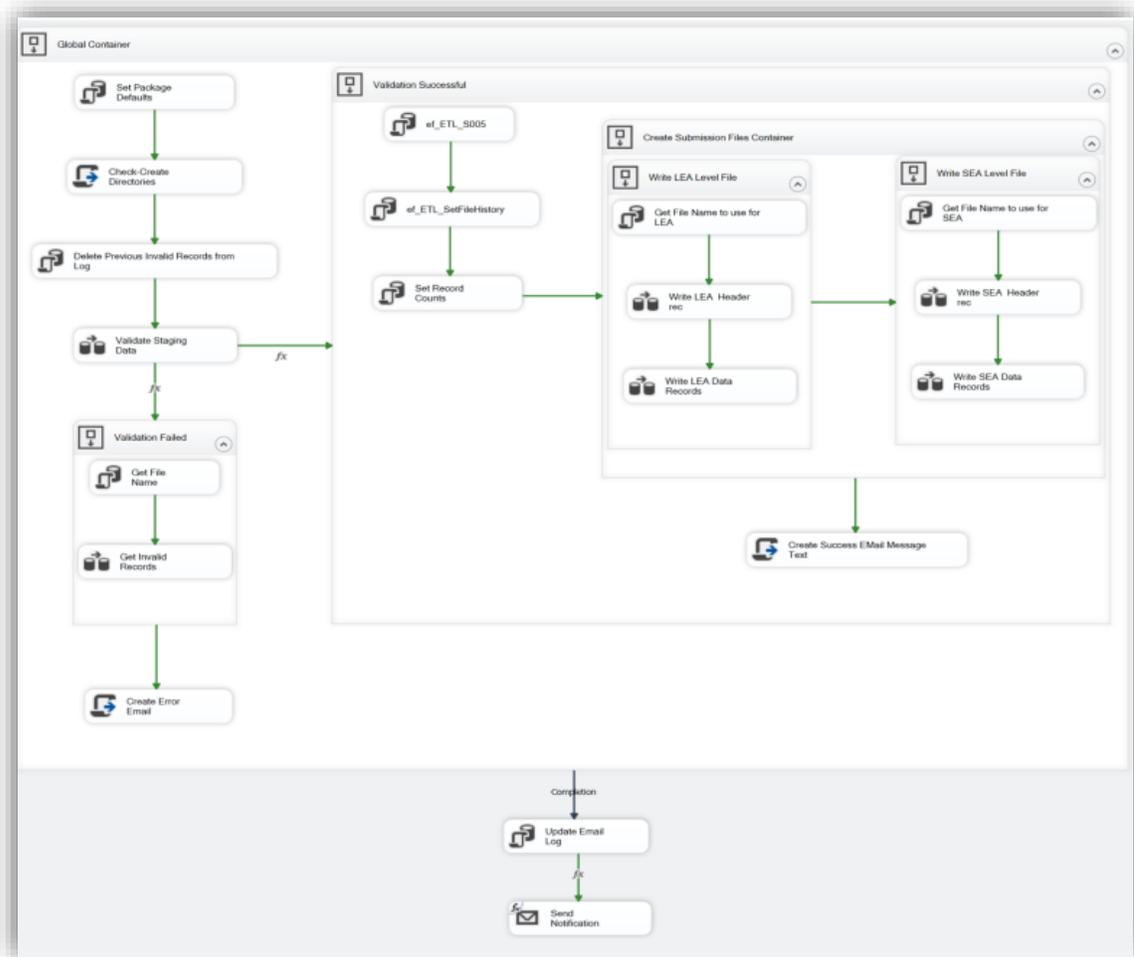


Figure 37: Typical Submission Package SSIS Control Flow

The flow begins at the upper left with “Set Package Defaults” and follows the appropriate arrows until “Send Notification.”

ES3 logs every time one of the labeled boxes start and stops. The SQL Package Execution Log menu option brings up a screen that allows a user to review that process log.

SSIS Package Task Log

Select a Package Name:  Select an execution instance:

Process Log Entries

[Refresh](#)

Package Task Name	Start Time	End Time	Elapsed Time	Task End Status
S005 CWD Removal To Interim Alt Ed Setting	7/9/2020 6:31:01 PM	7/9/2020 6:31:03 PM	00:00:02.0466667	Success
Global Container	7/9/2020 6:31:01 PM	7/9/2020 6:31:02 PM	00:00:01.6100000	Success
Set Package Defaults	7/9/2020 6:31:01 PM	7/9/2020 6:31:01 PM	00:00:00.0333333	Success
Check-Create Directories	7/9/2020 6:31:01 PM	7/9/2020 6:31:01 PM	00:00:00.0333333	Success
Delete Previous Invalid Records from Log	7/9/2020 6:31:01 PM	7/9/2020 6:31:01 PM	00:00:00.0300000	Success
Validate Staging Data	7/9/2020 6:31:01 PM	7/9/2020 6:31:01 PM	00:00:00.1566667	Success
Validation Successful	7/9/2020 6:31:01 PM	7/9/2020 6:31:02 PM	00:00:01.0966667	Success
ef_ETL_S005	7/9/2020 6:31:01 PM	7/9/2020 6:31:02 PM	00:00:00.2666667	Success
ef_ETL_SetFileHistory	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0300000	Success
Set Record Counts	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0800000	Success
Create Submission Files Container	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.5800000	Success
Write LEA Level File	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.2500000	Success
Get File Name to use for LEA	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0466667	Success
Write LEA Header rec	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0466667	Success
Write LEA Data Records	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0933333	Success
Write SEA Level File	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.2500000	Success
Get File Name to use for SEA	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0166667	Success
Write SEA Header rec	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0933333	Success
Write SEA Data Records	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0633333	Success
Create Success EMail Message Text	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0300000	Success
Update Email Log	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0300000	Success
Send Notification	7/9/2020 6:31:02 PM	7/9/2020 6:31:03 PM	00:00:00.2966667	Error

Figure 38: SSIS Package Process Log Screen

As shown in the example above, the report has a drop down for the package name, and then a drop down showing every time the selected package was executed.

The body of the report shows the results of the selected execution. The report fields are:

- **Package Task Name** – The name of box in the package control flow diagram. As shown in the generic package, tasks can be grouped within a containing box. When this occurs, those tasks appear indented below the containing task name.
- **Start Time** – the date and time the task execution started
- **End Time** – the date and time the task execution ended
- **Elapsed Time** – the elapsed time from start to end in hours, minutes and seconds. The seconds are shown including seven decimal places
- **Task End Status** – the final status for the particular task: Success, Failed, or, if a task is still running, Incomplete.

## SQL Agent Job Status

The ES3 package execution routine functions by creating a SQL Agent Job named the same as the package name. That job has a single task of running the SSIS package. The SQL Agent Job Status menu option brings up a screen like the following that shows all the EDFacts Jobs and the status of their last execution.

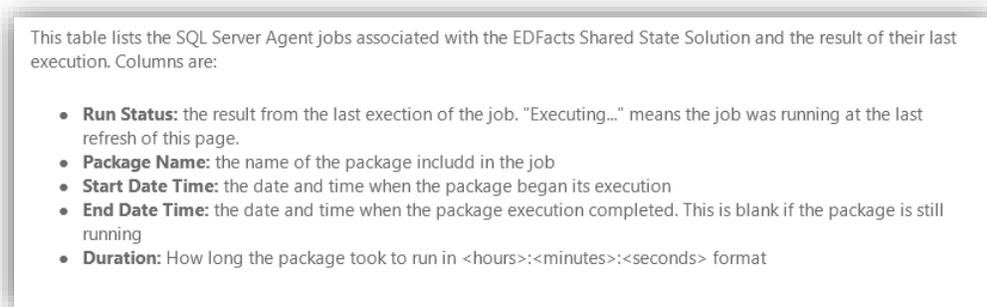


Run Status	Job Name	Start Date Time	End Date Time	Run Duration (hh:mm:ss)
Success	<a href="#">S029-S039 LEA Directory and Grades Offered.dtsx</a>	3/1/2022 1:19:27 PM	3/1/2022 1:19:33 PM	6
Success	<a href="#">S052 Membership.dtsx</a>	2/25/2022 3:29:40 PM	2/25/2022 3:29:42 PM	2
Success	<a href="#">S029-S039 School Directory and Grades Offered.dtsx</a>	2/9/2022 11:43:50 AM	2/9/2022 11:43:51 AM	1
Success	<a href="#">Directory and Grades Offered.dtsx</a>	2/9/2022 11:40:33 AM	2/9/2022 11:40:40 AM	6

Figure 39: SQL Agent Job Status screen

The top of the screen shows the SQL agent jobs associated with ES3. By default the screen shows the most recent jobs first. Clicking a column title will sort the screen by that value.

There is a footer that describes the contents of the screen's report.



This table lists the SQL Server Agent jobs associated with the EDFacts Shared State Solution and the result of their last execution. Columns are:

- **Run Status:** the result from the last execution of the job. "Executing..." means the job was running at the last refresh of this page.
- **Package Name:** the name of the package included in the job
- **Start Date Time:** the date and time when the package began its execution
- **End Date Time:** the date and time when the package execution completed. This is blank if the package is still running
- **Duration:** How long the package took to run in <hours>:<minutes>:<seconds> format

Figure 40: SQL Agent Job Status screen footer

There is always only one job for a given package and by default we do not keep prior job execution history for these jobs.

When ES3 creates jobs, it assigns them to a SQL Agent Job Category of "EDFacts Shared Solution Jobs." This report only shows the status of jobs in that category. This prevents the status of other agent jobs from being exposed through this application.

This report shows the following information for all EDFacts Agent Jobs.

- **Run Status** – the final status for the Job. Statuses are either:
  - Success – the job ran as expected and finished without error
  - Failed – some error occurred during execution and the job did not exit normally
  - Executing – the job is still running
- **Job Name** – the name of the job, which will be the name of the package that it needs to run
- **Start Date Time** – the date and time at which the agent job began running. This is from the system clock on the server running the job
- **End Date Time** – the date and time at which the agent job completed running. This will be blank if the job is still running
- **Run Duration** – the hours, minutes, and seconds that the job ran from start to finish

It is important to note that a job can finish successfully without creating submission files. If validation errors occur during the package execution, and the invalid records are identified and logged, the SSIS package execution will finish “successfully” and the agent job finish “successfully.” It is important to review the generated email and/or SSIS Package Execution Log to see the package results.

This screen automatically refreshes every 10 seconds. That means if a job is shown as “Executing...”, the screen will continue to update until the status changes to “Success” or “Failed”.

If a user clicks on a Job Name, then the SQL Agent Job Detail report is shown.

### *SQL Agent Job Details*

SQL Agent Job Details, accessed by clicking a Job Name link on the SQL Agent Job Status screen, results in a report like the following.

*Figure 41: SQL Agent Job Details Screen*

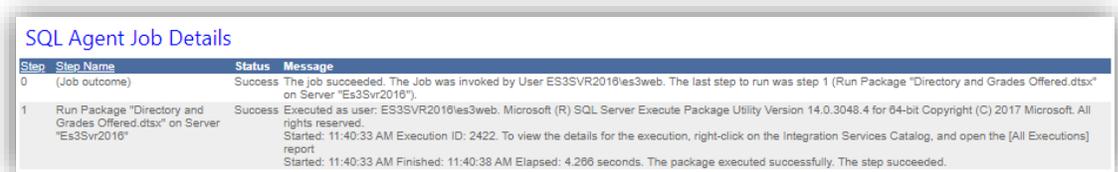
This report show the results of a job’s execution. The fields in the report are:

- **Step** – all the ES3 jobs have two steps: step 0 with the overall job status, and step 1 which is the SSIS package execution results.
- **Step Name** – The step name: either “(Job Outcome)” or our package name

- **Status** – The status results of pertinent job step: Success or Failed
- **Message** – the logged detailed results returned to the SQL agent by the job step. This information is useful for debugging when a package does not run as expected, but can otherwise be ignored.

## Email Log Review

Each of the SSIS ETL packages concludes by sending an email with the status of the processing. The Email Log Review menu option shows a screen like the following.



Step	Step Name	Status	Message
0	(Job outcome)	Success	The job succeeded. The Job was invoked by User ES3SVR2016\es3web. The last step to run was step 1 (Run Package "Directory and Grades Offered.dtsx" on Server "Es3Svr2016").
1	Run Package "Directory and Grades Offered.dtsx" on Server "Es3Svr2016"	Success	Executed as user: ES3SVR2016\es3web. Microsoft (R) SQL Server Execute Package Utility Version 14.0.3048.4 for 64-bit Copyright (C) 2017 Microsoft. All rights reserved. Started: 11:40:33 AM Execution ID: 2422. To view the details for the execution, right-click on the Integration Services Catalog, and open the [All Executions] report Started: 11:40:33 AM Finished: 11:40:38 AM Elapsed: 4.266 seconds. The package executed successfully. The step succeeded.

Figure 42: Email Log Review Screen

The "Select an Email" drop down shows all the emails generated by the system, sorted with the most current at the top of the list.

The next to last step in each package execution is to log these emails. That means even if the email sending fails due to email server issues, the package results summary still gets logged and can be reviewed here.

## Submission File Due Dates

This screen shows the EDFacts collection calendar. The screen shows the reporting period, file number and name, due date, and the submission levels included.

Submission File Due Dates								
Select a Reporting Period: 2021-2022				Files Due in the Next 180 days				
Reporting Period	Number	Name	Due Date	SEA	LEA	SCH	Not Reported by ES3	
<a href="#">Edit</a>	2021-2022	002	Children with Disabilities (IDEA) School-Age	06 Apr 2022	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<a href="#">Edit</a>	2021-2022	089	Children with Disabilities (IDEA) Early Childhood	06 Apr 2022	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">Edit</a>	2021-2022	033	Free and Reduced Price Lunch	29 Apr 2022	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<a href="#">Edit</a>	2021-2022	052	Membership	29 Apr 2022	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<a href="#">Edit</a>	2021-2022	129	CCD School	29 Apr 2022	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<a href="#">Edit</a>	2021-2022	059	Staff FTE	24 Jun 2022	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Figure 43: Submission File Due Dates

he last column in the screen is for whether the particular file is to be created and tracked in ES3. For example, states that have flexibility waivers releasing them from the AYP requirements of NCLB, may not have to report files 128, 152, nor 153 that are related to tracking the consequences of not making AYP.

Alternatively, states that don't have such waivers don't have to report files 171 – 174 since they have not identified flexibility subgroups.

The report can be filtered for a particular reporting period and/or files that are due in the next 30, 60, 90, 180, or 365 days.

## Submission File Creation Status

The EDFacts submission file creation status tracks submission file creation against the EDFacts calendar.

Reporting Period	Number	Name	Due Date	SEA Status	SEA File Created	LEA Status	LEA File Created	SCH Status	SCH File Created
2021-2022	130	ESEA Status	09 Feb 2022	○		○		●	
2021-2022	206	School Support and Improvement	09 Feb 2022	○		○		●	
2021-2022	212	Comprehensive Support and Targeted Support Identification	09 Feb 2022	○		○		●	
2021-2022	054	MEP Students Served - 12 Months	21 Feb 2022	●		○		○	
2021-2022	145	MEP Services	21 Feb 2022	●		○		○	
2021-2022	029_SEA	SEA Directory	25 Feb 2022	●		○		○	
2021-2022	029_LEA	LEA Directory	25 Feb 2022	○		●		○	
2021-2022	029_SCH	SCH Directory	25 Feb 2022	○		○		●	
2021-2022	039	Grades Offered	25 Feb 2022	○		●		●	
2021-2022	190	Charter School Authorizer Directory	25 Feb 2022	●		○		○	
2021-2022	196	Management Organizations Directory	25 Feb 2022	●		○		○	
2021-2022	197	Crosswalk of Charter Schools to Management Organizations	25 Feb 2022	○		○		●	
2021-2022	198	Charter Contracts	25 Feb 2022	○		○		●	
2021-2022	207	State Appropriations for Charter Schools	25 Feb 2022	○		○		●	
2021-2022	002	Children with Disabilities (IDEA) School-Age	06 Apr 2022	●		●		●	
2021-2022	089	Children with Disabilities (IDEA) Early Childhood	06 Apr 2022	●		●		○	
2021-2022	033	Free and Reduced Price Lunch	29 Apr 2022	○		○		●	
2021-2022	052	Membership	29 Apr 2022	●		●		●	
2021-2022	129	CCD School	29 Apr 2022	○		○		●	

Figure 44: Submission File Creation Status

The report can be filtered by reporting period and/or files due in the next 30, 60, 90, 180, or 365 days.

For each of the reported files the report shows the reporting period, file number and name, and due date. Then for each report level, the report show the creation status and last file creation date, if any.

Report content can be sorted on any column by simply clicking the column header.

Report status is shown by the colored dots in the respective column report level column. The color and meaning for the dots is:

- Green dot – a file for the respective report level and reporting period has been created for that submission file number. The created file has more than on data record.

A green dot does not mean the file has been sent to the EDFacts Submission System, nor that the file has been accepted by the state.

- Red dot – a file for the respective level has not been created and the file due data is prior to today.

- Orange dot – a file for the respective level has not been created and the due date of the file is in the next 14 days.
- Yellow dot – a file for the respective level has not been created but the due date is more than 14 days away from today
- Blue dot – a file for the respective level is not planned to be created by ES3. This might be because the state is not required to submit the reference file, or that the state will report that particular file using a legacy process.
- White dot – EDFacts does not include this report level for the referenced submission file.

If a file has been created for the respective level, the date of the file creation is shown next to the colored dot.

## Submission File Creation History

The ES3 submission loading packages store the EDFacts data in the EDFacts Submission tables and then create the submission files. We log the details of those created files in the SubmissionFileHistory table. The Submission File Creation History menu option brings up the following screen that reviews the file history.

Specification Number	Report Level	File Type	Last File Created	File Name	Identifier	Version ID	Record Count
S029_LEA	LEA	LEA DIRECTORY INFO	2/9/2022 11:44:18 AM	C:\ES3\2020-2021\S029\TXLEADIRECTORY0209112.tab	09Feb22 1144 es3web	0209112	4
S039	LEA	LEA GRADES OFFERED	2/9/2022 11:44:18 AM	C:\ES3\2020-2021\S039\TXLEAGRADESOFF0209112.tab	09Feb22 1144 es3web	0209112	56
S052	LEA	LEA MEMBERSHIP TABLE	2/25/2022 3:29:55 PM	C:\ES3\2020-2021\S052\TXLEAMEMBERSHP0225151.tab	25Feb22 1529 es3web	0225151	56
S052	SCH	SCHOOL MEMBERSHIP TABLE	2/25/2022 3:29:55 PM	C:\ES3\2020-2021\S052\TXSCHMEMBERSHP0225151.tab	25Feb22 1529 es3web	0225151	0
S052	SEA	SEA MEMBERSHIP TABLE	2/25/2022 3:29:55 PM	C:\ES3\2020-2021\S052\TXSEAMEMBERSHP0225151.tab	25Feb22 1529 es3web	0225151	1

Figure 45: Submission File History Screen

The user of this report selects the school year/reporting period of interest. This defaults to the most current school year.

By default all the submission files for the selected year are shown, but the user can select a specific submission file set, if desired.

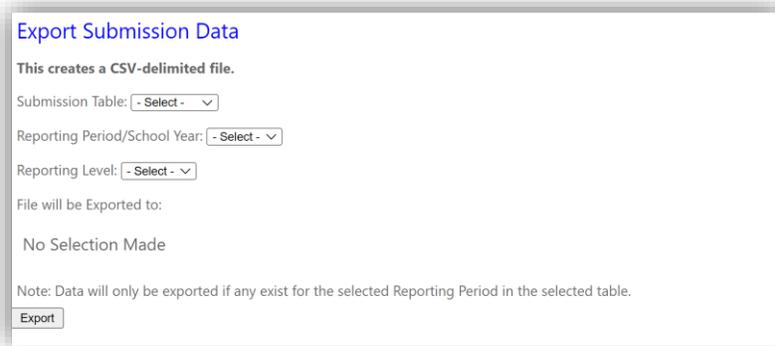
This report shows the information included in the header record of each of the submission files. That information includes:

- **Specification Number** – the EDFacts file specification number
- **Report Level** – the level of the report: SEA, LEA or SCH
- **File Type** – The file type as specified in the file specifications documents
- **Last File Created** – The last date on which this file was created. ES3 logs all file creations, but this report only shows the most current
- **File Name** – The full file path to the submission file
- **Identifier** – The file identifier that was written to the header record
- **Version ID** – The “version” that was written to the header record
- **Record Count** – The number of data rows written in the file

## Submission Data Review

### Export Submission Data

The Submission table pick list is generated “on the fly” from any tables in the EDFacts\_Submission schema. The Reporting Period pick list is chosen from the reporting period defined in the State Configuration screen. The Reporting Level will allow for SEA, LEA or SCH based on the report levels associated with the file submission. The Export Location value comes from the “Export Directory Root Path” location on the State Configuration screen for the selected reporting period.



Export Submission Data

This creates a CSV-delimited file.

Submission Table: [- Select -]

Reporting Period/School Year: [- Select -]

Reporting Level: [- Select -]

File will be Exported to:

No Selection Made

Note: Data will only be exported if any exist for the selected Reporting Period in the selected table.

Export

Figure 46: Export Submission Screen

When the [Export] button is selected, the system reads the layout of the selected table and generates a header record from the column names. Then the system

reads the data from the selected table for the selected reporting period/school year and writes them out to the file.

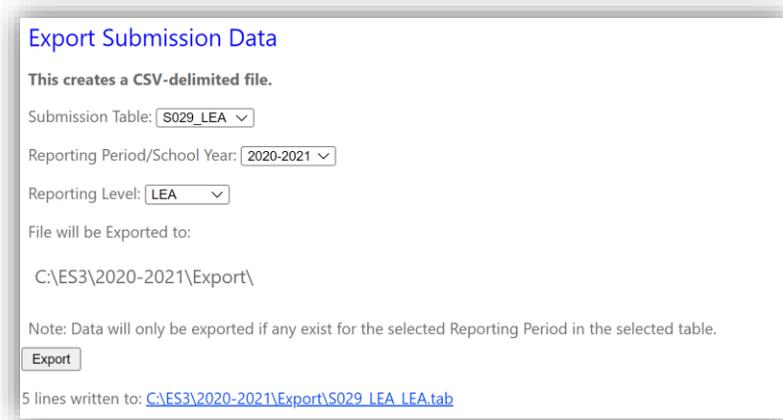


Figure 47: Populated Export Submission Screen