

# ES3 Web Management System User's Manual

**EDFacts Shared State Solution** 



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# **Change History Log**

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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		<ul> <li>Added descriptions of new features in version 1.1</li> <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</li> <li>Added root export folder to State Configuration screen</li> <li>Added New LED 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
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# Introduction

The ED*Facts* Shared State Solution (ES3) is a collaborative effort amongst states to coordinate and collaboratively build a common approach to building ED*Facts* 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 ED*Facts* repository in the ED*Facts* format and the ED*Facts* 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 ED*Facts* 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 ED*Facts* Coordinator and designated program staff to manage this system.

EDFacts Shared State Solution (ES3)	Welcome <b>mdever</b> ! [ <u>Log Out</u> ]							
Home Package Execution Staged Data Review Validation Configuration Management Reports Submission Data Review	User Manual							
Welcome to the EDFacts Shared State Solution Management System								
This solution was developed for State of Tranquility (Demo Site)								
Version: 3.5.1 (02/2022)								
The EDFacts Shared State Solution (ES3) was developed by ESP Solutions Group, Inc. in partnership with several state education agencies (SE pooled for a common architecture that solves the challenge of fulfilling the requirements of the U.S. Department of Education's EDFacts report	As). Resources and ideas were orting system.							
More complete details about the project can be found at:								
http://www.ES3Facts.info								
ESP Solutions Group	State of Tranquility (Demo Site)							



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 ED*Facts* 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

SEA Gene	ral Info														
Select School	(ear: 2020-2021 💙														
SEA Name	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	phone	Web Site Address
Edit Texas DOE	1836 Government Blvd		Austin	TX	78759	ABCD	1836 Government Blvd	Suite 400		Austin	TX	79750		(512) 879-5300	http://doe.tr.gov
								Contra 100		2 Constantin		10100		(012) 010 0000	indecinger

Figure 5: State Education Agency Basic Info screen

### SEA Chief School Officer Info

SE	SEA Chief School Officer Info							
Sele	ect School Year:	2020-2021 🗸						
	Chief First Name	Chief Last Name	Chief Job Title	Chief Phone	Chief Email			
Edit	Sam	Smith	State Superintendent of Public Instruction	555-555-5555	superintendent@espsg.com			

Figure 6: SEA Chief School Officer Info screen

### SEA Characteristics



Figure 7: SEA Characteristics screen

Clicking on the <u>Edit</u> link at the far left of any line allows the user to edit the individual fields. The link <u>Edit</u> changes to two links <u>Update Cancel</u>. When the revised data for an agency are corrected, click <u>Update</u> to save the changes, or click <u>Cancel</u> 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.

LE. Sele	A and Ch ect School Yea	arter	Autho	rize	r Gener ncy Types t	ral Info to Show: A	I Agencies	~													
[ <u>A</u>	d New LEA ]	[ Delete	an LEA ]																		
	LEA Name	<u>State</u> LEA Identifier	NCES ID	LEA Type	<u>Charter</u> Authorizer <u>Type</u>	Operational Status	<u>Supervisory</u> <u>Union</u>	Mailing Address Line 1	Line Line 2 3	City	State	Zip	Zip+4	Location Address Line 1	Line Line 2 3	City	State	Zip	Zip+4	Out Of State phone LEA	Web Site Address
Edit	LA GRANGE ISD	030	4834567	1		1		1501 PLUM CHURCH RD		LA GRANGE	ΤХ	78945	5824	1501 PLUM CHURCH RD		LA GRANGE	ΤХ	78945	5824		www.la- grange-isd.edu
<u>Edit</u>	MARBLE FALLS ISD	020	4823456	1		1		1010 KINGSWOOD DR		MARBLE FALLS	тх	78654	1340	1010 KINGSWOOD DR		MARBLE FALLS	тх	78654	1340		www.marble- falls-isd.edu
Edit	MUSTANG RIDGE ISD	040	4845678	1		1		8775 OLD LOCKHART RD		MUSTANG RIDGE	тх	78610	3012	8775 OLD LOCKHART RD		MUSTANG RIDGE	тх	78610	3012		www.mustang- ridge-isd.edu
<u>Edit</u>	SMITHVILLE ISD	010	4812345	1		1		704 GAZLEY ST		SMITHVILLE	тх	78957	3301	704 GAZLEY ST		SMITHVILLE	тх	78957	3301		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.

Agency Type	s to Show:	All Agencies LEAs Only	
LEA	Charter	Charter Authorizers Only	wail

Figure 9: A	Agency T	ype Drop	Down Menu
-------------	----------	----------	-----------

Clicking on the <u>Edit</u> link at the far left of any line allows the user to edit the individual fields for the selected agency. The link <u>Edit</u> changes to two links

<u>Update Cancel</u>. When the revised data for an agency are corrected, click <u>Update</u> to save the changes, or click <u>Cancel</u> to discard any edits.

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

Use the <u>Home</u> link at the left on the title bar to return to the Welcome screen and main menu.

Home Package Execution Staged Data Review Validation Conf

Add New LEA	Α
SeleSelect School Y	(ear: 2020-2021 🗸
State LEA Identifier	
LEA Name	
Add New LEA	Reset New LEA

Figure 11: Add New LEA screen

### LEA Grades Offered

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

LEA Grades Offe	red																
Select School Year: 2020	2021	~															
LEA Name	PK	KG	1	2	3	4	5	6	7	8	9	10	11	12	13	AE	UG
Edit LA GRANGE ISD	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	~	<b>v</b>	~	~	$\checkmark$	$\checkmark$	<b>v</b>	$\checkmark$	$\checkmark$	$\checkmark$			
Edit MARBLE FALLS ISD	$\mathbf{V}$													$\mathbf{V}$			
Edit MUSTANG RIDGE ISD	~	$\checkmark$	$\checkmark$	$\checkmark$	~	$\checkmark$	~	$\checkmark$									
Edit SMITHVILLE ISD	$\overline{\mathbf{v}}$																

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 <u>Edit</u> 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.

Select School Yea	ar: 2020-2021 🗸												
<u>State LEA</u> Identifier	EA Name <u>AYP</u> Status	<u>Alternate</u> <u>Approach</u> <u>Status</u>	<u>Charter</u> LEA Status	<u>Improvement</u> <u>Status</u>	LEP Language Progress (AMAO I)	LEP ELP Attainment (AMAO II)	LEP Academic Achievement (AMAO III)	McKinney- Vento Subgrantee?	<u>REAP</u> <u>Alternative</u> <u>Funding</u>	Title III Subgrantee?	<u>Title III</u> <u>Consortia</u> <u>Name</u>	Parental Involvement Reservation	lmmigrant Program Participant?
Edit 030	A GRANGE SD		N							×			<b>V</b>
Edit 020	IARBLE ALLS ISD		Ν										
Edit 040 RI	IUSTANG IDGE ISD		Ν										1
Edit 010 SM	MITHVILLE		N										

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.

chool	Gener	al Info																					
lect Scho	ol Year:	2020-2021	~																				
elect Distr	ict (LEA):	- Any Dist	rict -		~																		
Add New	School ] [	Change	School ID	or LEA	] [ <u>Dele</u>	te a School	1																
<u>School</u> <u>Name</u>	State LEA Identifier	State School Identifier	NCES LEA ID	NCES School ID	<u>School</u> 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
dit PS 0100	010	0100	4812345	01001	1	1	1700 SE 4TH ST			78957	тх	78957		1700 SE 4TH ST				ТΧ	78957				www.smithvi isd.edu
Edit 0110	010	0110	4812345	01002	1	1	1731 BRAZOS BEND AVE			78957	тх	78957		1731 BRAZOS BEND AVE				тх	78957				www.smithvi isd.edu
Edit PS 0111	010	0111	4812345	01003	1	1	1724 RIVERCHASE AVE			78957	тх	78957		1724 RIVERCHASE AVE				тх	78957				www.smithvi isd.edu
Edit 0200	020	0200	4823456	01004	1	1	1125 N US 281	STE 106		78654	тх	78654		1125 N US 281	STE 106			ТΧ	78654				www.marble falls-isd.edu
dit 0210	020	0210	4823456	01005	1	1	506 TURKEY TROT			78654	тх	78654		506 TURKEY TROT				ТΧ	78654				www.marble falls-isd.edu
dit PS 0211	020	0211	4823456	01006	1	1	816 ESPERANZA AVE			78654	тх	78654		816 ESPERANZA AVE				тх	78654				www.marble falls-isd.edu
Edit 0300	030	0300	4834567	01007	1	1	1735 OLD PLUM HWY			78945	тх	78945		1735 OLD PLUM HWY				тх	78945				www.la-gran

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 <u>Edit</u> button to edit a particular record, and use the <u>Home</u> link to return to the Welcome screen.

Add New S	chool		
Select School Yea	ir: 2020-2021 💙		
Select District (LE	A): LA GRANGE ISD	(030) 🗸	
State School Iden	tifier		
School Name			
Add New School	Reset New Sch	<u>lool</u>	
State LEA Identifier	State School Identifie	r 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

School Grade	es Offered																				
Select District (LEA):	- Any District -	✓	Cohool Number	DIZ	KO		2	•			•	7	0	•	40		40	40	45	110	Comuna Na Comula
Edit 010	0100	PS 0100	010-0100		KG V		2	3	4	9 			•	9	10		12	13			Serves No Grade
Edit 010	0110	PS 0110	010-0110										~								
Edit 010	0111	PS 0111	010-0111											~	~	~	~				
Edit 020	0200	PS 0200	020-0200						$\mathbf{V}$												
Edit 020	0210	PS 0210	020-0210								~	$\checkmark$	$\sim$								
Edit 020	0211	PS 0211	020-0211											$\overline{\mathbf{v}}$		$\overline{}$	$\overline{\mathbf{v}}$				
Edit 030	0300	PS 0300	030-0300	~	~	~	<b>V</b>	~	~	~											

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 <u>Edit</u> 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.

Sch	nool (	harac	teristics																							
Selec	t Schoo	ol Year: 2	020-2021 🗸																							
Selec	t Distric	ct (LEA): [	- Any District -		~																					
	State LEA Identifier	<u>State</u> School Identifier	<u>School</u> <u>AYP</u> <u>Name</u> <u>Status</u>	AYP by Alt Approach	<u>Charter</u> <u>Status</u>	Primary Charter Authorizer	Additional Charter Authorizer	Filed GFSA Report	Improvemer Status	<u>t Magnet</u> <u>Status</u>	MEP Funds Merged 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	<u>Title I</u> Eligible Program	<u>Title I</u> Program	Migrant Count	Truant Count	<u>Virtual Status</u>	Include In EDFacts?
Edit (	010	0100	PS 0100	NA	Y					NA		Y									N	N	0	0	FACEVIRTUAL	
Edit (	010	0110	PS 0110		Ν					Ν		Y									Ν	Ν	0	0	FULLVIRTUAL	
Edit (	010	0111	PS 0111		Ν					Y		Y									N	Ν	0	0	VIRTUALNO	
Edit (	020	0200	PS 0200		N					N		Y									N	Ν	0	0		
Edit (	020	0210	PS 0210		N					N		Y									N	N	0	0		
Edit (	020	0211	PS 0211		Ν					N		Y									Ν	Ν	0	0		

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 ED*Facts* 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:

ES3 Staged Data Export to Tab-delimited File
Select a Staging Table: SchoolDirectory
Select Reporting Period/School Year: 2013-2014 🗸
File will be Exported to:
c:\EDFacts Demo\Files for Submission\2013-2014\Export\
Note: Data will only be exported if any exist for the selected Reporting Period in the selected table.           Export

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 same or archive a particular export set, then simple 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 ED*Facts* option set and school year, this table holds the state codes and the ED*Facts* 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

Select a l	Reporting	Period: 2021-	2022 🗸	
Select a d	code set:	Disability Catego	ory 🗸	1
	State Cod	e EDFacts Code	Description	
dit Delete	AUT	AUT	Autism	
dit Delete	DB	DB	Deaf-Blindness	
dit Delete	DD	DD	Developmental Delay	
dit Delete	EMN	EMN	Emotional Disturbance	
dit Delete	HI	HI	Hearing Impairments	
dit Delete	MD	MD	Multiple Disabilities	
dit Delete	MR	MR	Intellectual Disability	
dit Delete	OHI	ОНІ	Other Health Impairments	
dit Delete	01	01	Orthopedic Impairments	
dit Delete	SLD	SLD	Specific Learning Disabilities	
dit Delete	SLI	SLI	Speech or Language Impairments	
Edit Delete	TBI	TBI	Traumatic Brain Injury	
dit Delete	VI	VI	Visual Impairments	

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 ED*Facts* equivalents.

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

Figure 21: Code Set Translation Edit screen

This translation process allows ES3 to stage data with state codes, but have a uniform cross-state ETL process for generating the ED*Facts* 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
lit Delete	2021-2022	Texas	ТХ	48	01	C:\ES3\2021-2022	C:\ES3\2021-2022\Export	edfactsadmin@espsg.com	Demo
it Delete	2020-2021	Texas	ТХ	48	01	C:\ES3\2020-2021	C:\ES3\2020-2021\Export	edfactsadmin@espsg.com	Demo
it Delete	2019-2020	Texas	ТХ	48	01	C:\ES3\2019-2020	C:\ES3\2019-2020\Export	edfactsadmin@espsg.com	Demo
it Delete	2018-2019	Texas	ТХ	48	01	C:\ES3\2018-2019	C:\ES3\2018-2019\Export	edfactsadmin@espsg.com	Demo
it Delete	2017-2018	Texas	ТΧ	48	01	C:\ES3\2017-2018	C:\ES3\2017-2018\Export	edfactsadmin@espsg.com	Demo
it Delete	2016-2017	Texas	ТХ	48	01	C:\ES3\2016-2017	C:\ES3\2016-2017\Export	edfactsadmin@espsg.com	Demo

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.

State C	characteristics	
	Name	<u>Value</u>
Edit Delete	CTE Disability Status Codeset	Disability Status (Only)
Edit Delete	CTE Tech Prep	Yes
Edit Delete	isCharterAllowed	No
Edit Delete	isUngradedAllowed	Yes
Edit Delete	Min SE Exit Age RMA	21
Edit Delete	Min SE Exit Grad Age	16
Edit Delete	Secondary Displaced Homemaker	Yes
New State	<u>Characteristic</u>	

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.

Select a R	eporting Pe	riod: 2021-2	022 🗸				
Soloct Spo	cification N	umbor A	w Cassification 14				
select spe	cilication N	uniber A	iy Specification - 👻				
	Specification	report Level	header Decord FileName	header Decord FileTune	data Decord Table Name	file Subdirectory	invalid Decords FileNam
Edit Delete	S002	LEA	CWDBLIDEA	LEA CHILDREN WITH DISABILITIES	IDEADISAB	S002	Invalid S002 Records
Edit Delete	S002	SCH	CWDBLIDEA	SCHOOL CHILDREN WITH DISABILITIES	IDEADISAB	S002	Invalid S002 Records
Edit Delete	S002	SEA	CWDBLIDEA	SEA CHILDREN WITH DISABILITIES	IDEADISAB	S002	Invalid S002 Records
Edit Delete	S005	LEA	CWDIDEADP	LEA CHILDREN WITH DISAB (IDEA) DISCIPLINE	CHDISDSPL	S005	Invalid S005 Records
Edit Delete	S005	SEA	CWDIDEADP	SEA CHILDREN WITH DISAB (IDEA) DISCIPLINE	CHDISDSPL	S005	Invalid S005 Records
Edit Delete	S006	LEA	CDIDEAMSE	LEA CHILDREN WITH DISAB (IDEA) MULTI SUSPEN EXPU	IDEASUSEXPL	S006	Invalid S006 Records
Edit Delete	S006	SEA	CDIDEAMSE	SEA CHILDREN WITH DISAB (IDEA) MULTI SUSPEN EXPU	IDEASUSEXPL	S006	Invalid S006 Records
Edit Delete	S007	LEA	CWDIDEARV	LEA CHILDREN WITH DISAB (IDEA) REMOVAL	IDEAREMOV	S007	Invalid S007 Records
Edit Delete	S007	SEA	CWDIDEARV	SEA CHILDREN WITH DISAB (IDEA) REMOVAL	IDEAREMOV	S007	Invalid S007 Records
Edit Delete	S009	LEA	CDIDEAESE	LEA CHILDREN WITH DISAB (IDEA) EXITING SPEC ED	IDEAEXITSPED	S009	Invalid S009 Records
Edit Delete	S009	SEA	CDIDEAESE	SEA CHILDREN WITH DISAB (IDEA) EXITING SPEC ED	IDEAEXITSPED	S009	Invalid S009 Records
Edit Delete	S029_LEA	LEA	DIRECTORY	LEA DIRECTORY INFO		S029	Invalid S029_LEA Record
Edit Delete	S029_SCH	SCH	DIRECTORY	SCHOOL DIRECTORY INFO		S029	Invalid S029_SCH Reco
Edit Delete	S029_SEA	SEA	DIRECTORY	SEA DIRECTORY INFO		S029	Invalid S029_SEA Reco
Edit Delete	S032	LEA	DROPOUCNT	LEA DROPOUT	DROPOUTCNT	S032	Invalid S032 Records
Edit Delete	S032	SCH	DROPOUCNT	SCHOOL DROPOUT	DROPOUTCNT	S032	Invalid S032 Records
Edit Delete	S032	SEA	DROPOUCNT	SEA DROPOUT	DROPOUTCNT	S032	Invalid S032 Records
Edit Delete	S033	SCH	PRICELNCH	SCHOOL FREE AND REDUCED PRICE LUNCH	Multiple	S033	Invalid S033 Records
Edit Delete	S035	SEA	FEDPROOFF	SEA FEDERAL PROGRAMS	FEDPROG	S035	Invalid S035 Records
Edit Delete	S036	LEA	STUTRGASS	LEA TARGETED ASSISTANCE PROGS STUDENT PART	TRGTASSPROGPART	S036	Invalid S036 Records
Edit Delete	S036	SEA	STUTRGASS	SEA TARGETED ASSISTANCE PROGS STUDENT PART	TRGTASSPROGPART	S036	Invalid S036 Records
Edit Delete	S037	LEA	STUTTLONE	LEA TITLE I STUDENT PARTICIPATION	TITLEIPART	S037	Invalid S037 Records
Edit Delete	S037	SEA	STUTTLONE	SEA TITLE I STUDENT PARTICIPATION	TITLEIPART	S037	Invalid S037 Records
Edit Delete	S039	LEA	GRADESOFF	LEA GRADES OFFERED		S039	Invalid S039 Records
Edit Delete	S039	SCH	GRADESOFF	SCHOOL GRADES OFFERED		S039	Invalid S039 Records



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 ED*Facts* 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 ED*Facts* 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 ED*Facts* 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, simple 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.

Veri S052 EDF	fy and/or Edit Package 2 Membership.dtsx <b>acts Submission Load</b>	Configuration, then S	chedule for Executio
	<u>Parameter</u>	<u>Value</u>	
- 11A	Error Email CC Line		
Edit	LITUI LITIAII CO LITIE		
Edit	Error Email To Line	dprather@espsg.com	
Edit Edit Edit	Error Email To Line Reporting Period	dprather@espsg.com 2021-2022	
Edit Edit Edit Edit	Error Email To Line Reporting Period Success Email CC Line	dprather@espsg.com 2021-2022	

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 <u>Edit</u> link and had selecting the dropdown value for the Reporting Period of '2021-2022'. When <u>Update</u> 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

Package Execution Results Package Name: S052 Membership.dtsx Package Execution begun normally Check Email or Email Log for execution specifics SSIS Package Status

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 ED*Facts* 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 ED*Facts*.

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.

LEA and/or Charter Authorizer Basic Inf	ō
Select a Reporting Period:	Select a Submission File:
2013-2014 💌	S002 💌
Error Affe	cted Record Count
Invalid option for [Educational Environment (IDEA) SA] of [ <null>]</null>	255
Invalid option for [LEP Status (Both)] of [ <null>]</null>	<u>19</u>

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.

USED Validation Reporting	
Select Submission File Validation to Run: 5002 🗸 Select School Ye	ar: 2021-2022 🗸
Execute Validation	

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.

USED Va	lidation R	lesults
Submission	File: SO29 Re	eporting Period: 2020-2021 Validation Date Time: 2/25/2022 3:38 PM Rules Executed
<u>Severity</u>	<u>Rule</u>	Description
Error	ER-115	Prior LEA ID / NCES ID do not match current year or prior year data.
e Error	ER-116	Prior LEA ID / Prior School ID / NCES ID do not match current year or prior year data.
e Error	M-008	The edit identifies when there is a prior year record, but there is no current year record.

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 form the EDFacts Business Rules spreadsheet

ub	mission F	ile: <b>S0</b> 2	29 Rep	orting Period: 2020-2021	Validation Date Time: 2/25/2022	3:38 PM	Rules Executed
	<u>Severity</u>	<u>Rule</u>		<b>Description</b>			
	Error	E	R-115	Prior LEA ID / NCES ID do not m	natch current year or prior year data.		
	Category	LEA lo	d Schoo	I Id Additional Info			
		010	0100	Current NCES ID: 4812345			
		010	0110	Current NCES ID: 4812345			
		010	0111	Current NCES ID: 4812345			
		020	0200	Current NCES ID: 4823456			
		020	0210	Current NCES ID: 4823456			
		020	0211	Current NCES ID: 4823456			
		030	0300	Current NCES ID: 4834567			
		030	0310	Current NCES ID: 4834567			
		030	0311	Current NCES ID: 4834567			
		040	0400	Current NCES ID: 4845678			
		040	0410	Current NCES ID: 4845678			
		040	0411	Current NCES ID: 4845678			
	Error	E	R-116	Prior LEA ID / Prior School ID / N	ICES ID do not match current year or prior y	vear data.	
	Error		4-008	The edit identifies when there is	a prior year record, but there is no current y	ear record	



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.

USED	Rules Implemented and Executed
Submissi	on File: S029 Reporting Period: 2020-2021 Validation Date Time: 2/25/2022 3:38 PM Validation Results
<u>Rule</u> 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="">.</error>
ER-105	Prior State ID <parm1> matches another State ID in the file submission.</parm1>
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.</lea>
ED 400	

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.

	eporti	ng Period: 2021-202	Select a submission	n file: S052	~											
Submission	Rule ID	ES3 Procedure Name	Error Message	Error Type	<u>General</u> Edit	<u>Severity</u>	<u>Year</u> <u>To</u> Year	<u>SEA</u>	<u>LEA</u>	<u>SCH</u>	First ESS Release	Begin Reporting Period	End Reporting Period	Additional File 1	Additional File 2	Addition 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) (N/X059) 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	ΝΟ	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	/alidation	n Rule E	irror H	listory						
Select a R	eporting Perio	od: 2019-2	020 🗸 🖇	Select a su	bmission file	S089 ¥	]			
Reporting Period	Submission Number	Rule Number	<u>Severity</u>	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 ED*Facts* 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 ED*Facts* 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 Statu	s Package Name	Start Date Time	End Date Time	Run Duration (hh:mm:ss)
<ul> <li>Success</li> </ul>	S002 Children With Disabilities IDEA School Age	8/24/2023 6:30:53 PM	8/24/2023 6:30:53 PM	00:00:00
<ul> <li>Success</li> </ul>	S059 Staff FTE	8/24/2023 5:30:00 PM	8/24/2023 5:30:00 PM	00:00:00
<ul> <li>Success</li> </ul>	Staff FTE from Tab file	8/24/2023 5:20:55 PM	8/24/2023 5:20:55 PM	00:00:00
<ul> <li>Success</li> </ul>	S089 Children with Disabilities IDEA Early Childhood	18/24/2023 5:17:38 PM	8/24/2023 5:17:38 PM	00:00:00
<ul> <li>Success</li> </ul>	S052 Membership	8/24/2023 4:52:37 PM	8/24/2023 4:52:37 PM	00:00:00
<ul> <li>Success</li> </ul>	Children With Disabilities to Staging	8/24/2023 4:52:18 PM	8/24/2023 4:52:18 PM	00:00:00
<ul> <li>Success</li> </ul>	Fall Membership to Staging	8/24/2023 4:51:43 PM	8/24/2023 4:51:43 PM	00:00:00
<ul> <li>Success</li> </ul>	S029-S039 School Directory and Grades Offered	8/24/2023 4:49:25 PM	8/24/2023 4:49:25 PM	00:00:00
<ul> <li>Success</li> </ul>	S029-S039 LEA Directory and Grades Offered	8/24/2023 4:49:15 PM	8/24/2023 4:49:15 PM	00:00:00
Success	Directory and Grades Offered	8/24/2023 4:48:19 PM	8/24/2023 4:48:19 PM	00:00:00
<ul> <li>Success</li> </ul>	S033 Free and Reduced Price Lunch	8/24/2023 10:16:19 AM	8/24/2023 10:16:19 AN	00:00:00
Success	S029 SEA Directory	8/22/2023 3:19:57 PM	8/22/2023 3:19:57 PM	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	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
<ul> <li>Success</li> </ul>	LEP Enrolled to Staging	6/23/2020 11:20:11 AM	6/23/2020 11:20:11 AM	00:00:00
<ul> <li>Success</li> </ul>	Fall Student Membership to Staging	5/13/2020 3:40:23 PM	5/13/2020 3:40:24 PM	00:00:00
<ul> <li>Success</li> </ul>	S004 CWD Not Participating in Assessments	5/7/2020 1:35:00 PM	5/7/2020 1:35:00 PM	00:00:00
<ul> <li>Success</li> </ul>	Basic Staff FTE Data Package Deployment	11/8/2019 10:04:56 AM	11/8/2019 10:04:56 AM	00:00:00
<ul> <li>Success</li> </ul>	Basic Staff FTE Data	11/8/2019 9:14:39 AM	11/8/2019 9:14:39 AM	00:00:00
<ul> <li>Success</li> </ul>	S032 Dropouts	10/3/2019 8:05:50 PM	10/3/2019 8:05:50 PM	00:00:00
<ul> <li>Success</li> </ul>	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

 $\geq \geq >$ 

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: S005 CWD Ren	moval To Interim Alt Ed	Setting V S	elect an execution	n insta	ance: 7/9/2020	6:31:01 PM 🗸
Process Log Entries						
Refresh						
Package Task Name	<u>Start Time</u>	End Time	Elapsed Time	<u>ta</u>	<u>ask End Status</u>	
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	່ ຣ	Success	
Global Container	7/9/2020 6:31:01 PM	7/9/2020 6:31:02 PM	00:00:01.6100000	່ ຣ	Success	
Set Package Defaults	7/9/2020 6:31:01 PM	7/9/2020 6:31:01 PM	00:00:00.0333333	່ ຣ	Success	
Check-Create Directories	7/9/2020 6:31:01 PM	7/9/2020 6:31:01 PM	00:00:00.0333333	• s	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	່ ຣ	Success	
Validate Staging Data	7/9/2020 6:31:01 PM	7/9/2020 6:31:01 PM	00:00:00.1566667	່ ຣ	Success	
Validation Successful	7/9/2020 6:31:01 PM	7/9/2020 6:31:02 PM	00:00:01.0966667	່ ຣ	Success	
ef_ETL_S005	7/9/2020 6:31:01 PM	7/9/2020 6:31:02 PM	00:00:00.2666667	<b>)</b> s	Success	
ef_ETL_SetFileHistory	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0300000	<b>)</b> s	Success	
Set Record Counts	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0800000	<b>)</b> s	Success	
Create Submission Files Container	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.5800000	່ ຣ	Success	
Write LEA Level File	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.2500000	<b>)</b> s	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	<b>)</b> s	Success	
Write LEA Header rec	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0466667	<b>)</b> s	Success	
Write LEA Data Records	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0933333	• s	Success	
Write SEA Level File	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.2500000	• s	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	• s	Success	
Write SEA Header rec	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0933333	• s	Success	
Write SEA Data Records	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0633333	• s	Success	
Create Success EMail Message Text	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0300000	• s	Success	
Update Email Log	7/9/2020 6:31:02 PM	7/9/2020 6:31:02 PM	00:00:00.0300000	• s	Success	
Send Notification	7/9/2020 6:31:02 PM	7/9/2020 6:31:03 PM	00:00:00.2966667	• E	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 ED*Facts* Jobs and the status of their last execution.

Run Statu	<u>s Job Name</u>	Start Date Time	End Date Time	Run Duration (hh:mm:ss)
Success	S029-S039 LEA Directory and Grades Offered.dtsx	3/1/2022 1:19:27 PM	3/1/2022 1:19:33 PM	6
Success	S052 Membership.dtsx	2/25/2022 3:29:40 PM	12/25/2022 3:29:42 PM	2
Success	S029-S039 School Directory and Grades Offered.dts	<u>x</u> 2/9/2022 11:43:50 AM	1 2/9/2022 11:43:51 AM	1
Success	Directory and Grades Offered.dtsx	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 exection of the job. "Executing..." means the job was running at the last refresh of this page.
Package Name: the name of the package includd 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:
  - o 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.



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 ED*Facts* 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 V         Files Due in the Next 180 V days								
<b>1</b>	Reporting Period	Number	Name	Due Date	SEA	LEA	SCH	Not Reported by ES3
<u>Edit</u>	2021-2022	002	Children with Disabilities (IDEA) School-Age	06 Apr 2022				
Edit	2021-2022	089	Children with Disabilities (IDEA) Early Childhood	06 Apr 2022				
Edit	2021-2022	033	Free and Reduced Price Lunch	29 Apr 2022			1	
Edit	2021-2022	052	Membership	29 Apr 2022		2		
Edit	2021-2022	129	CCD School	29 Apr 2022				
Edit	2021-2022	059	Staff FTE	24 Jun 2022		12		

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

Submission File Creation Status

The ED*Facts* submission file creation status tracks submission file creation against the ED*Facts* calendar.

Select a Reporting Period: Any - 💌			Files Due in the Next 😐 🗸 days						
Reporting Period	Number	Name	Due Date	<u>SEA</u> Status	SEA File Created	LEA Status	LEA File Created	SCH Status	SCH File Created
2020-2021	S035	Federal Programs	02 Jun 2023	•		•		0	
2022-2023	S002	Children with Disabilities (IDEA) School-Age	28 Aug 2023	•	24 Aug 2023	•	24 Aug 2023	٠	24 Aug 2023
2022-2023	S089	Children with Disabilities (IDEA) Early Childhood	28 Aug 2023	٠	24 Aug 2023	۲	24 Aug 2023	0	
2022-2023	S033	Free and Reduced Price Lunch	28 Aug 2023					٠	24 Aug 2023
2022-2023	S052	Membership	28 Aug 2023	٠	24 Aug 2023	٠	24 Aug 2023	٠	24 Aug 2023
2022-2023	S129	CCD School	28 Aug 2023					•	
2022-2023	S059	Staff FTE	28 Aug 2023	٠	24 Aug 2023	۲	24 Aug 2023	٠	24 Aug 2023
2022-2023	S005	Children with Disabilities (IDEA) Removal to Interim Alternative Educational Setting	02 Nov 2023						
2022-2023	S006	Children with Disabilities (IDEA) Suspensions/Expulsions	02 Nov 2023	•		•		0	
2022-2023	S007	Children with Disabilities (IDEA) Reasons for Unilateral Removal	02 Nov 2023						
2022-2023	S009	Children with Disabilities (IDEA) Exiting Special Education	02 Nov 2023	•		•		0	
2022-2023	S070	Special Education Teachers	02 Nov 2023						
2022-2023	S088	Children with Disabilities (IDEA) Disciplinary Removals	02 Nov 2023	•		•		0	
2022-2023	S099	Special Education Related Services Personnel	02 Nov 2023						
2022-2023	S112	Special Education Paraprofessionals	02 Nov 2023	•		•		0	
2022-2023	S143	Children with Disabilities (IDEA) Total Disciplinary Removals	02 Nov 2023					0	
2022-2023	S144	Educational Services During Expulsion	02 Nov 2023	•		•		0	

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 ED*Facts* data in the ED*Facts* 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.

Submission File Creation History									
Select a Reporting Period: 2020-2021 V Select a submission file: - All - V									
Specification Number	Report Level	File Type	Last File Created	File Name	Identifier	<u>Version</u> 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 - V						
Reporting Period/School Year: - Select - V						
Reporting Level: - Select - V						
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.

Export Submission Data	
This creates a CSV-delimited file.	
Submission Table: S029_LEA V	
Reporting Period/School Year: 2020-2021 V	
Reporting Level: LEA 🗸	
File will be Exported to:	
C:\ES3\2020-2021\Export\	
Note: Data will only be exported if any exist for the selected Reporting Period in the selected table. Export	
5 lines written to: <u>C:\ES3\2020-2021\Export\S029_LEA_LEA.tab</u>	

Figure 47: Populated Export Submission Screen