

## CLI Engage Automated Rostering Requirements

### 1. General Overview

The automated rostering process is used to create and maintain student rosters, classes, and teacher accounts in CLI Engage. This process can be illustrated as follows:



By using the automated rostering process, districts can provide enrollment data to CLI on a daily basis. Existing files will be replaced and the automated rostering process will be run once a day with the following logic:

- a) Only Homeroom Classes will be created.
- b) Only Students enrolled in a Homeroom Class will be created.
- c) Before scheduling the automated rostering process, existing Teachers, Classes, and Students may need to be updated with any new or missing Internal ID.
- d) Since Students cannot be created without an existing Class, it can take up to 2 days or cycles to create a new set of Class-Students.
- e) Any updated information provided on the data files will be updated in CLI Engage, such as names, DOB, grade level, State Unique ID, etc.

### Note for Skyward Users:

If your District's SIS vendor is Skyward, you can upload the preconfigured SXR reports onto your Skyward's Report Manager:

[Skyward SXR Reports](#)

## 2. OneRoster 1.1 Standard

The automated rostering is based on the IMS OneRoster standard (version 1.1) **with some modifications**. All the basic specifications can be found at:

<https://www.imsglobal.org/oneroster-11-introduction>

<https://www.imsglobal.org/oneroster-v11-final-specification>

<https://www.imsglobal.org/oneroster-v11-final-csv-tables>

**2.1 The OneRoster 1.1 standard** is composed by a collection of fourteen files in csv format but only six of them are used by CLI Engage. Three files require one or five metadata fields to provide data needed for CLI Engage.

File	Required	Metadata Fields
manifest.csv	Yes	
orgs.csv	Yes	
users.csv	Yes	1
classes.csv	Yes	1
enrollments.csv	Yes	
demographics.csv	Yes	5

CSV files must be encoded as Windows (CRLF) UTF-8.

2.2 Type of data provided by each of the required files:

1	manifest.csv	Summary of files and type of data provided.
2	orgs.csv	School names, school local or district IDs, agency or district ID
3	users.csv	Student and teacher first and last names, local or district IDs, email, link to School ID, State Unique ID
4	classes.csv	Class name, grade level, type, and link school
5	enrollments.csv	Student and teacher links to class and school
6	demographics.csv	Student DOB, gender, ethnicity, sub-population indicators (Special Ed; Special Ed Former; English Learner; Economically Disadvantaged; Dyslexia)

## 2.3 Files details (based on the IMS OneRoster standard)

Note the CLI Engage requirements in the **CLI Engage Notes** column.

### 2.3.1 manifest.csv

Property Name (One per row)	Required	Format	Value Description	CLI Engage Notes
manifest.version	Yes	String	The version of the manifest. For an initial value this must be "1.0".	Provide 1.0
oneroster.version	Yes	String	The OneRoster version supported by this file set. This must be "1.1".	Provide 1.1
file.academicSessions	Yes	Enumeration	Each field is enumerated as: { "absent"   "bulk"   "delta" } with the values denoting: absent - this CSV file is not supplied; bulk - this CSV file contains only bulk data; delta - this CSV file contains only delta data.  These processing mode hints should be consistent with the data held within the accompanying CSV files but in cases of conflict the values in the data CSV files must take precedence.	Provide: absent
file.categories	Yes	Enumeration		Provide: absent
file.classes	Yes	Enumeration		Provide: bulk
file.classResources	Yes	Enumeration		Provide: absent
file.courses	Yes	Enumeration		Provide: absent
file.courseResources	Yes	Enumeration		Provide: absent
file.demographics	Yes	Enumeration		Provide: bulk
file.enrollments	Yes	Enumeration		Provide: bulk
file.lineltems	Yes	Enumeration		Provide: absent
file.orgs	Yes	Enumeration		Provide: bulk
file.resources	Yes	Enumeration		Provide: absent
file.results	Yes	Enumeration		Provide: absent
file.users	Yes	Enumeration		Provide: bulk
source.systemName	No	String		The name for the system producing the set of files.

source.systemCode	No	String	Identification code for the system producing the set of files.	Provide or leave blank
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**2.3.2 orgs.csv**

Column Field Header	Required	Format	Description	CLI Engage Notes
sourcedId	Yes	GUID	Unique id for the organization. SourcedId is used in other files and must be unique across all organizations.	3-digit campus number
status	No	Enumeration	<a href="#">See section 4.13.8</a> [OneRoster, 17a] for the enumeration list.	Leave blank
dateLastModified	No	DateTime	The date that this record was last modified.	Leave blank
name	Yes	String	Name of the organization.	Provide
type	Yes	Enumeration	<a href="#">See section 4.13.4</a> [OneRoster, 17a] for the enumeration list.	Provide 'school' o 'district'
identifier	No	String	NCES ID National Center for Education Statistics) for the school/district.	Optional
parentSourcedId	Yes	GUID Reference.	SourcedId of an Org representing the Parent organization.	In Texas, 6-digit District TEA ID, no dashes. I.e.: 111222

**2.3.3 users.csv**

Column Field Header	Required	Format	Description	CLI Engage Notes
sourcedId	Yes	GUID	Unique ID for the user. SourcedId is used in other files and must be unique across all users,	Local Teacher and Student ID. This ID will be used in the enrolments.csv file. Provide only data for the grade levels that will use CLI Engage
status	No	Enumeration	<a href="#">See section 4.13.8</a> [OneRoster, 17a] for the enumeration list.	Leave blank
dateLastModified	No	DateTime	The date that this record was last modified.	Leave blank
enabledUser	Yes	Boolean	Boolean: { "true"   "false" }. 'false' denotes that the user is an active record but system	Provide: 'true' for Teachers 'false' for Students

			access is curtailed according to the local administration rules.	
orgSourcedIds	Yes	List of GUID References.	SourcedIds of the Orgs to which this user belongs.  (Note in most in cases, it is expected that users will belong to a single school).	3-digit campus number
role	Yes	Enumeration	<a href="#">See section 4.13.5</a> [OneRoster, 17a] for the enumeration list.	Provide 'teacher' or 'student'.
username	Yes	String	Username	Not Used
userIds	No	String	External machine-readable ID (e.g. LDAP id, LTI id) for this user. The ID must be accompanied by a type to indicate the nature of the Identifier. The Type and ID values are enclosed in '{}' with a colon used to separate the values. If more than one userId is needed, use double quotes, and separate with commas (per RFC 4180).	Not Used
givenName	Yes	String	User's first name	Provide first name
familyName	Yes	String	User's surname	Provide last name
middleName	Yes	String	User's middle name (s). If more than one then they are separated by a space.	Provide or leave blank
identifier	No	String	Identifier for the user with a human readable meaning	Leave blank
email	Yes	String	Email address for the user	Only required for Teachers
sms	No	String	SMS address for the user	Can be provided or left blank
phone	No	String	Phone number for the user	School phone number or left blank
agentSourcedIds	No	List of GUID References	SourcedIds of the users to which this user has a relationship. If multiple Ids are required then use double quotes and separate with commas. Note: In most cases this will be for indicating parental relationships.	Leave blank

grades	Yes for Students	String	Grade(s) for which a user with role 'student' is enrolled. The permitted vocabulary is from <a href="#">CEDS (Version 5)</a> for the 'Entry Grade Level' element	Required and only for Students, provide PR, EE, PK, K, KG, 1, 2, etc. Provide only data for the grade levels that will use CLI Engage.
password	No	String	The password for the user. This may or may not be an encrypted string. If encrypted the systems processing must be aware of the encryption method.	Leave blank
metadata.stateUniqueld	Yes	String	ID provided by the State	In Texas, provide the 10-digit TSDS ID for students and teachers

### 2.3.4 classes.csv

Column Field Header	Required	Format	Description	CLI Engage Notes
sourcedId	Yes	String	Unique ID for the class. SourcedId is used in other files and must be unique across all classes.	Class Internal ID. This ID will be used in the enrolments.csv file. Provide only data for the grade levels that will use CLI Engage.
status	No	Enumeration	<a href="#">See section 4.13.8</a> [OneRoster, 17a] for the enumeration list.	Leave blank
dateLastModified	No	DateTime	The date that this record was last modified.	Leave blank
title	Yes	String	Name of this class	Provide
grades	Yes	String	Grade(s) for which the class is attended. The permitted vocabulary is from <a href="#">CEDS (Version 5)</a> for the 'Entry Grade Level' element	Classes cannot be multi-grade. Provide PR, EE, PK, K, KG, 1, 2, etc.
courseSourcedId	No	GUID Reference	SourcedId of the course of which this class is an instance	Leave blank
classCode	No	String	Human readable code used to help identify this class	Leave blank
classType	Yes	Enumeration	<a href="#">See section 4.13.1</a> [OneRoster, 17a] for the enumeration list.	Provide 'homeroom' to identify

				Homeroom Classes, 'scheduled' for others
location	No	String	Human readable description of where the class is physically located	Leave blank
schoolSourcedId	Yes	GUID Reference	SourcedId of the Org that teaches this class of OrgType "school".	In Texas, 3-digit campus number
termSourcedIds	Yes	List of GUID References	SourcedId of the terms (the academicSessions) in which the class is taught.	Leave blank
subjects	No	String	<p>Subject name(s) in human readable form. If the 'subjectCodes' attribute is present then the subjects and subjectCodes lists must have the same length and have order significance</p> <p>The vocabulary is from SCED (<a href="#">School Codes for the Exchange of Data</a>) (Version 4) for the "Course Title" field.</p> <p>If the value of the "Course Title" contains commas, then those commas must be removed.</p> <p>For example, the "Course Title" for "SCED Course Code" "03210" is "Science, Technology and Society". This must be represented as "Science Technology and Society".</p>	Leave blank
subjectCodes	No	List of Strings	<p>Subject codes(s) in machine readable form. If more than one subject code is needed, use double quotes, and separate with commas (per RFC 4180). If the 'subjects' attribute is present the two lists must have the same length and have order significance.</p> <p>The vocabulary is from SCED (<a href="#">School Codes for the Exchange of Data</a>):</p> <p>(any commas in the label should be removed).</p>	Leave blank

Periods	No	List of Strings	The time slots in the day that the class will be given. If more than one period is needed, use double quotes, and separate with commas (per RFC 4180).  Examples: 1; "1,3,5"	Leave blank
metadata.dayType	Yes	String	Provide AM, PM or FD	Needed for Engage to distinguish half-day from full-day programs

### 2.3.5 enrollments.csv

Column Field Header	Required	Format	Description	CLI Engage Notes
sourcedId	Yes	GUID	Unique identifier of this enrollment.	Provide
status	No	Enumeration	<a href="#">See section 4.13.8</a> [OneRoster, 17a] for the enumeration list.	Leave blank
dateLastModified	No	DateTime	The date that this record was last modified.	Leave blank
classSourcedId	Yes	GUID Reference	SourcedId of the Class.	Internal Class ID assignment. Provide enrollment to Homeroom Class only. (sourcedId from the classes.csv file)
schoolSourcedId	Yes	GUID Reference	SourcedId of an Org with type 'school'.	3-digit Internal School ID assignment.
userSourcedId	Yes	GUID Reference	SourcedId of the User.	Internal Student or Teacher ID (sourcedId from the users.csv file)
role	Yes	Enumeration	<a href="#">See section 4.13.5</a> [OneRoster, 17a] for the enumeration list.	Provide 'teacher' or 'student'

primary	Yes	Boolean	Applicable only to teachers. Only one teacher should be designated as the primary teacher for a class in the period defined by the begin/end dates. Boolean: { "true"   "false" }.	Provide 'true' for Homeroom Teachers; 'false' for non-Homeroom Teachers and Students.
beginDate	Yes	Date	The start date for the enrollment. This date must align with the associated academic session (term) identified in the class.	Provide date when student enrolls in the District in the current school year
endDate	Yes	Date	The end date for the enrollment (exclusive). This date must align with the associated academic session (term) identified for the class.	Provide date of last day of Classes for the current school year

### 2.3.6 demographics.csv

Column Field Header	Required	Format	Description	CLI Engage Notes
sourcedId	Yes	GUID Reference	SourcedId of the User to which the demographics refer. Typically this will be a student. Each user can have only one demographics record.	Internal Student or Teacher ID (sourcedId from users.csv file).
status	No	Enumeration	<a href="#">See section 4.13.8</a> [OneRoster, 17a] for the enumeration list.	Leave blank
dateLastModified	No	DateTime	The date that this record was last modified.	Leave blank
birthDate	Yes	Date	The date of birth.	Provide DOB
sex	Yes	Enumeration	<a href="#">See section 4.13.2</a> [OneRoster, 17a] for the enumeration list.	Provide 'male' or 'female'
americanIndianOrAlaskaNative	Recommended	Enumeration	Boolean: { "true"   "false" }.	Can be provided or left blank

asian	Recommended	Enumeration	Boolean: { "true"   "false" }.	Can be provided or left blank
blackOrAfricanAmerican	Recommended	Enumeration	Boolean: { "true"   "false" }.	Can be provided or left blank
nativeHawaiianOrOtherPacificIslander	Recommended	Enumeration	Boolean: { "true"   "false" }.	Can be provided or left blank
white	Recommended	Enumeration	Boolean: { "true"   "false" }.	Can be provided or left blank
demographicRaceTwoOrMoreRaces	Recommended	Enumeration	Boolean: { "true"   "false" }.	Can be provided or left blank
hispanicOrLatinoEthnicity	Recommended	Enumeration	Boolean: { "true"   "false" }.	Can be provided or left blank
countryOfBirthCode	No	String	Country where the user was born. The permitted vocabulary is from <a href="#">CEDS (Version 5) for the "Country of Birth" element</a>	Leave blank
stateOfBirthAbbreviation	No	String	State where the user was born. The permitted vocabulary is from <a href="#">CEDS (Version 5) for the "State of Birth" element</a>	Leave blank
cityOfBirth	No	String		Leave blank
publicSchoolResidenceStatus	No	String	An indication of the location of the users legal residence relative to the boundaries of the public school attended. The permitted vocabulary is from <a href="#">CEDS (Version 5) for the "Public School Residence Status" element</a>	Leave blank
metadata.specialEd	Recommended	Enumeration	Boolean: { "true"   "false" }.	Used for students currently receiving special education services. Can be provided or left blank
metadata.specialEdFormer	Recommended	Enumeration	Boolean: { "true"   "false" }.	Used for students who received special education services in the past but no longer receiving special education services. Can be provided or left blank
metadata.englishLearner	Recommended	Enumeration	Boolean: { "true"   "false" }.	Used for students identified as English Learners (formerly known as ELL). Can be provided or left blank
metadata.econDisadvantaged	Recommended	Enumeration	Boolean: { "true"   "false" }.	Used for students identified as

				economically disadvantaged. Can be provided or left blank
metadata.dyslexia	Recommended	Enumeration	Boolean: { "true"   "false" }.	Used for students receiving dyslexia services. Can be provided or left blank

## Additional Considerations

Due to the purpose and design of the CLI Engage platform, districts must design the data files with the following guidelines:

- 2.1 CSV files must be encoded as Windows (CRLF) UTF-8
- 2.2 Teachers can be assigned to one or more Class. This feature accommodates Teachers with a single, full day Class or Teachers with multiple Classes, such as two half-day Classes (AM and PM), or in-person and virtual Classes.
- 2.3 Teachers can be assigned to one or more Schools. This feature accommodates Teachers with an AM Class at School A and a PM Class at School B.
- 2.4 Teachers must maintain the same local ID or a duplicate account will be created.
- 2.5 Teachers with local ID in Engage will be activated or inactivated according to their presence on users.csv file.
- 2.6 Classes in the data set must be assigned only to one School.
- 2.7 Classes must have only one Homeroom Teacher enrollment. Multiple non-homeroom Teachers can be enrolled in the Class.
- 2.8 Class Internal IDs should not change at the semester change during the school year or duplicate classes will be created.
- 2.9 Students must be enrolled in only one Homeroom Class.
- 2.10 Students with local ID will be activated or inactivated according to their presence on users.csv file.
- 2.11 Metadata fields are necessary and recommended for various reports that Districts submit to State Agencies and for internal longitudinal data analysis.
- 2.12 Data files can be received directly through a third-party service like ClassLink or from the District.