

The Special Education Data Model

SEDM



Presenters



Greg Nadeau

Ed3 Convenor



John Lovell

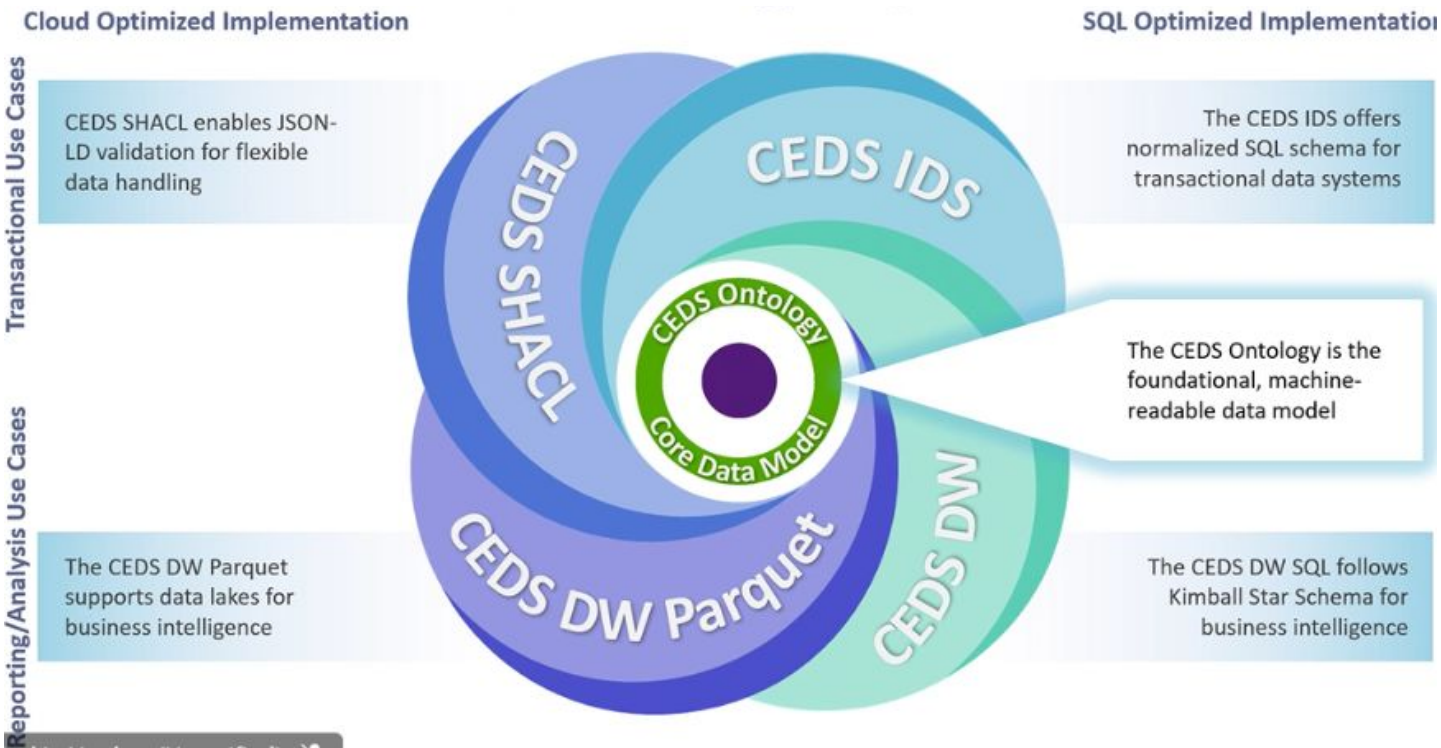
Technology Director
A4L Community



TQ White

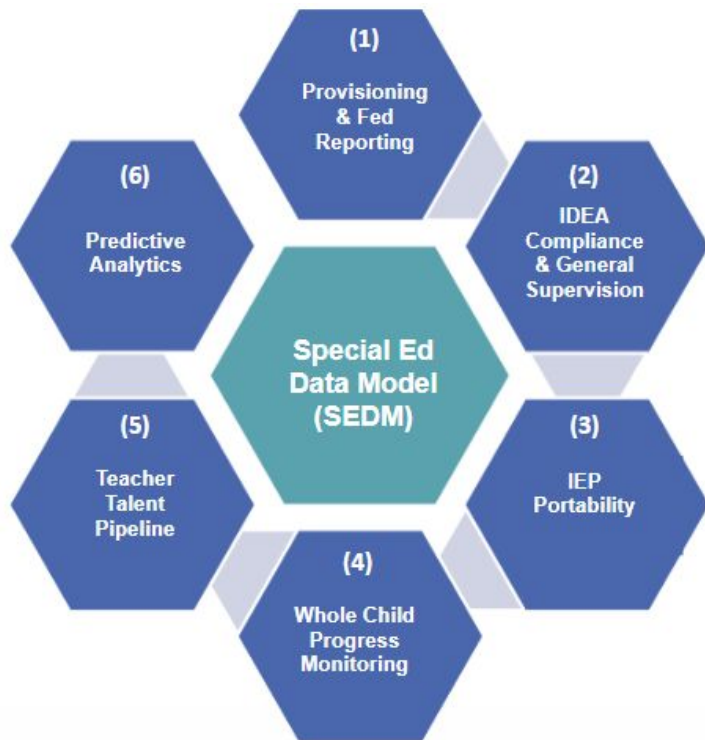
Lone Genius
Justkidding, Inc

SEDM is helping drive CEDS-3



SEDM is mapped to 6 Bus Drivers

Each business driver contains one or more specific use case, each mapped to elements, validation, and transformation logic



1. Provisioning & Fed Reporting

- a. **1 of 102 Examples - FS002-Child Count:** As a EdPass reporter, I want to assemble and validate the 19 data elements, automatically generate the aggregate counts, enable quality control and analysis for fact tables. [FS002 Requirements](#)

2. IDEA Compliance & Gen Supervision

3. IEP Portability

4. Whole Child Progress Monitoring

5. Teacher Talent Pipeline

6. Predictive Analytics

SEDM used CIID ETL Specifications

 Center for Data Integration & Research Data Home Publications Publication Details File Upload	K12 -> LEA -> Identification	Local Education Agency Identifier	A unique number or alphanumeric code assigned to a local education agency by a school system, a state, or other agency or entity.
 Center for Data Integration & Research Data Home Publications Publication Details File Upload	School -> Identification	School Identifier	A unique number or alphanumeric code assigned to an institution by a school, school system, a state, or other agency or entity.
 Center for Data Integration & Research Data Home Publications Publication Details File Upload	Student -> Identity -> on	Student Identifier	A unique number or alphanumeric code assigned to a student by a school, school system, a state, or other agency or entity.
 Center for Data Integration & Research Data Home Publications Publication Details File Upload	Student -> Demographic	Sex	The concept describing the biological traits that distinguish the males and females of a species.
 Center for Data Integration & Research Data Home Publications Publication Details File Upload	Student -> Demographic	Sex	The concept describing the biological traits that distinguish the males and females of a species.
 Center for Data Integration & Research Data Home Publications Publication Details File Upload	Student -> Demographic	Sex	The concept describing the biological traits that distinguish the males and females of a species.
 Center for Data Integration & Research Data Home Publications Publication Details File Upload	Student -> Demographic	Sex	The concept describing the biological traits that distinguish the males and females of a species.

To identify 178 “Golden Elements”

Domain																								
	Entity	Category	Element Name	Definition	Option Set	Format	Global ID	Data Model ID	Assessment ETL	Base IDEA ETL	Charter ETL	Child Count ETL	Directory ETL	Directory Lite ETL	Discipline ETL	Exiting ETL	Membership ETL	No/D Participation ETL	QISE ETL	Personnel ETL	Title I ETL	Title III ETL	In any ETL template?	
K12	K12 Student	Identity>Identific	Student Identifier	A unique number or alphanumeric	None	Alphanumeric - 40 cha	001071	59775	Y	Y		Y			Y	Y	Y	Y			Y	Y	Y	
K12	K12 Student	Demographic	Birthdate	The year, month and day on which	None	YYYY-MM-DD	000033	58995								Y		Y	Y		Y	Y	Y	
K12	K12 Student	Demographic	Sex	The concept describing the	Male - Male		000255	59811	Y	Y		Y			Y	Y	Y	Y			Y	Y	Y	
K12	K12 Student	Demographic	American Indian or Alaska Nat	A person having origins in any of	Yes - Yes		000016	59907											Y				Y	
K12	K12 Student	Demographic	Asian	A person having origins in any of	Yes - Yes		000020	59908											Y				Y	
K12	K12 Student	Demographic	Black or African American	A person having origins in any of	Yes - Yes		000034	59909											Y				Y	
K12	K12 Student	Demographic	Native Hawaiian or Other Pacifi	A person having origins in any of	Yes - Yes		000192	59910										Y					Y	
K12	K12 Student	Demographic	White	A person having origins in any of	Yes - Yes		000301	59911										Y					Y	
K12	K12 Student	Demographic	Demographic Race Two or Mo	A person having origins in any of	Yes		000973	59425											Y				Y	
K12	K12 Student	Demographic	Hispanic or Latino Ethnicity	An indication that the person	Yes - Yes		000144	59765	Y	Y		Y		Y	Y	Y	Y	Y		Y	Y	Y		
K12	K12 Student	Demographic	Military Connected Student In	An indication that the student's	NotMilitaryC		001576	61933	Y														Y	
K12	K12 Student	Demographic	Race	The origins of a person.	AmericanIndi		001943	63548	Y	Y		Y			Y	Y	Y	Y			Y	Y	Y	
K12	K12 Student	Enrollment	Responsible District Identifier	The district responsible for specific	None	Alphanumeric - 40 cha	000637	59905									Y	Y		Y	Y	Y	Y	
K12	K12 Student	Enrollment	Responsible School Identifier	The school responsible for specific	None	Alphanumeric - 40 cha	000638	59906									Y			Y	Y	Y	Y	
K12	K12 Student	Enrollment	Enrollment Entry Date	The month, day, and year on which	None	YYYY-MM-DD	000097	59747	Y			Y			Y	Y	Y	Y					Y	
K12	K12 Student	Enrollment	Entry Grade Level	The grade level or primary	IT -		000100	59749						Y	Y	Y	Y	Y		Y			Y	
K12	K12 Student	Enrollment	Enrollment Exit Date	The year, month and day on which	None	YYYY-MM-DD	000107	59750	Y			Y			Y	Y	Y	Y			Y		Y	
K12	K12 Student	Attendance	Number of Days in Attendance	The number of days a person is	None	Numeric - up to 2 digit	000202	59796										Y	Y				Y	
K12	K12 Student	Attendance	Number of Days Absent	The number of days a person is	None	Numeric - up to 2 digit	000201	59795										Y					Y	
K12	K12 Student	Attendance	Student Attendance Rate	The number of school days during	None	Numeric - between 0 s	000271	59816										Y					Y	
K12	K12 Student	Academic Record	Progress Level	The amount of progress shown in	NEGGRADE -		000561	59874									Y						Y	
K12	K12 Student	Disability	IDEA Indicator	A person having intellectual	Yes		000151	59771	Y	Y		Y		Y	Y		Y	Y		Y	Y	Y		
K12	K12 Student	Disability	Disability Status	An indication of whether a person	Yes		000577	59884										Y					Y	
K12	K12 Student	Disability	Section 504 Status	Individuals with disabilities who are	Yes		000249	59810										Y					Y	
K12	K12 Student	Disability	Primary Disability Type	The major or overriding disability	AUT - Autism		000218	59800		Y		Y		Y									Y	
K12	K12 Student	Disability	IDEA Educational Environment	The setting in which children ages 6	RC80 - Inside		000535	59864				Y		Y									Y	
K12	K12 Student	IDEA	Program Participation Start Da	The year, month and day on which	None	YYYY-MM-DD	000590	59995	Y	Y		Y			Y								Y	
K12	K12 Student	IDEA	Program Participation Exit Dat	The year, month and day on which	None	YYYY-MM-DD	000591	59996	Y	Y		Y		Y	Y								Y	
K12	K12 Student	IDEA	Special Education Exit Reason	The reason children who were in	HighSchoolDi		000260	59812							Y								Y	
K12	K12 Student	Title I	Title I Indicator	An indication that the student is	01 - Public		000281	59821												Y			Y	
K12	K12 Student	Discipline	Disciplinary Action Taken	Identifies the consequences of an	03071 - Bus		000488	59855						Y									Y	
K12	K12 Student	Discipline	Disciplinary Action Start Date	The year, month and day on which	None	YYYY-MM-DD	000083	59739						Y									Y	

Compliance General Supervision

The [SEDM Logical Model](#) documents categories and sequences of events laid out in IDEA

SEDM Compliance Category	Compliance Control	Data Needed
1-Identification	Indicator 9 compares the races/ethnicities of students with disabilities to the races/ethnicities of students without disabilities in a school district. Indicator 10 looks at different disability categories in a school district. Within each category, Indicator 10 will then compare the races/ethnicities of students.	Race/Ethnicity IDEA Indicator Primary Disability Type
2-Initial Referral	Indicator 11 measures the percent of students who received an initial evaluation for special education within 60 days of a parent giving consent.	Parental Consent for Evaluation Given Evaluation Complete

Legend	Timeline							IEP			
Transfer						Transfer Report Completion		Transfer Student IEP Adoption			
IDEA Eligible	Referral for Evaluation	Parental Consent for Evaluation	Evaluation Complete	Eligibility Determination						3 Year Eligibility Reevaluation	
IEP Timeline					IEP Approved	Parental Consent for IEP Decline	Parental Consent for IEP Given	IEP Begins	IEP Annual Review Complete	Parental Consent for IEP Withdrawn	IEP Completion
Incident & LRE Removal									Incident	Removed from Least Restrictive	Manifestation Determination
Parent Complaint	Parent Complaint (SEA/LEA)									Written Decision (SEA/LEA)	Resolution of Complaint

SEDM IEP Portability

SEDM has identified three starting points for requirements analysis:

1. IDEA
2. MWTM v1
3. SIF xIEP

IDEA §1414. (d); (1); "IEP" means a written statement for each child with a disability that is developed, reviewed, and revised in accordance with this section and that includes—

- (I) a statement of the child's present levels of academic achievement and functional performance*
- (II) a statement of measurable annual goals,*
- (III) a description of how the child's progress toward meeting the annual goals will be measured*
- (IV) a statement of the special education related services and supplementary aids and services,*
- (V) an explanation of the extent, if any, to which the child will not participate with nondisabled children in the regular class and in the activities*
- (VI) a statement of any individual appropriate accommodations that are necessary to measure the academic achievement and functional performance of the child*

MWTM Element	Data Constraints
Student First Name	75 characters maximum
Student Last Name	Alphanumeric - 75 characters
MilitaryRefID	Numerical Sequence or List of IDs
StudentRefID	
Military-Connected Student Identifier	Option Set
Awaiting Initial IDEA Evaluation Status	Yes/No
IDEA Indicator	Yes/No
Disability Status	Yes/No
Section 504 Status	Yes/No
Parent Consent	Yes/No
Date of Parent	MM-DD-YY
Primary Disability Type	Option Set
Disability Condition Type	Option Set
IDEA Educational Environment for School Age	Option Set
Student Support Service Type	Option Set
IEP Review Date	YYYY-MM
Evaluation Due Date	YYYY-MM
Status End/Exit Date	YYYY-MM
Status Start Date	YYYY-MM

SEDM IEP Portability

SEDM has identified three starting points for requirements analysis:

1. IDEA
2. MWTM v1
3. SIF xIEP

IDEA §1414. (d); (1); "IEP" means a written statement for each child who is identified as having a disability, developed, reviewed, and revised in accordance with this section and that contains:
(I) a statement of the child's present levels of academic achievement and functional performance (PLAAPF),
(II) a statement of measurable annual goals,
(III) a description of how the child's progress toward meeting the annual goals will be measured,
(IV) a statement of the special education related services and supplementary aids and services, including program modifications and supports for school and home that are designed to meet the child's needs that result from the child's disability, and
(V) an explanation of the extent, if any, to which the child will not participate with nondisabled children in the regular class and in the activities
(VI) a statement of any individual appropriate accommodations that are necessary to measure the child's academic achievement and functional performance of the child

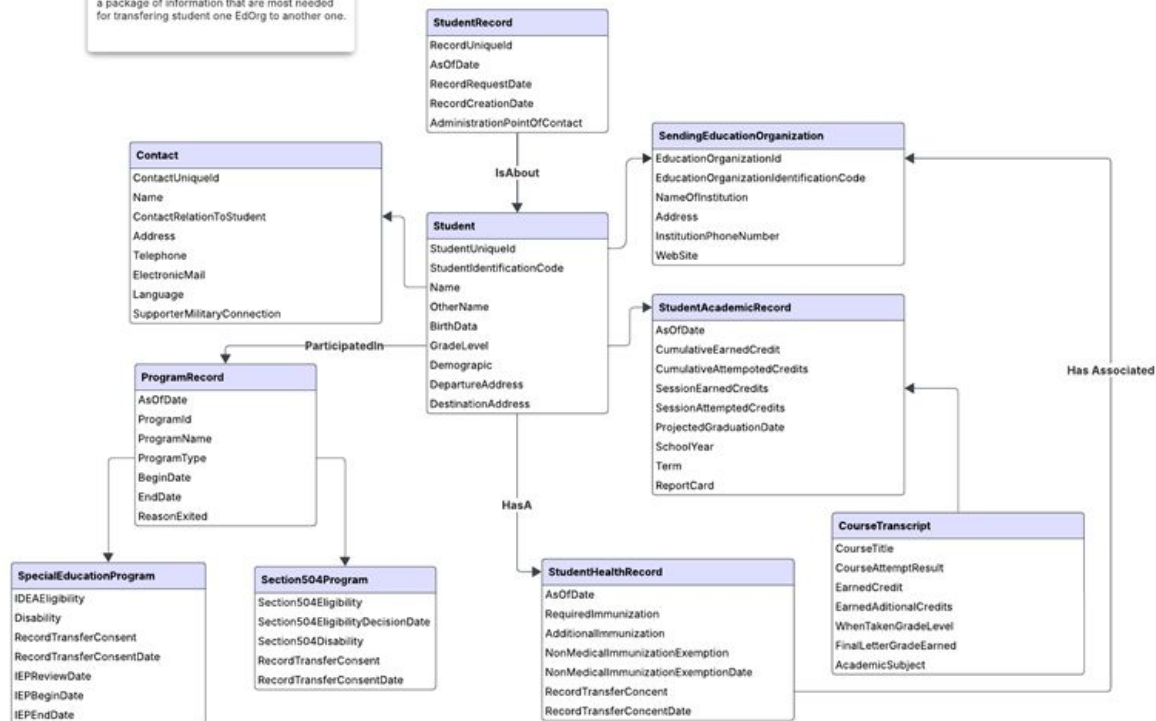
MWTM Element	Data Constraints
Student First Name	75 characters maximum
Student Last Name	Alphanumeric - 75 characters
MilitaryRefID	Numerical Sequence or List of IDs
StudentRefID	
Military-Connected Student Identifier	Option Set
Awaiting Initial IDEA Evaluation Status	Yes/No
IDEA Indicator	Yes/No
Disability Status	Yes/No
Section 504 Status	Yes/No
Parent Consent	Yes/No
Date of Parent	MM-DD-YY
Primary Disability Type	Option Set
Disability Condition Type	Option Set
IDEA Educational Environment for School-Age	Option Set
Student Support Service Type	Option Set
IEP Review Date	YYYY-MM
Evaluation Due Date	YYYY-MM
Status End/Exit Date	YYYY-MM
Status Start Date	YYYY-MM

#	IEP Component	Requirement	Element Name	Definition	Format	CEDS ID
1	Present Levels of Academic Achievement And Functional Performance (PLAAPF)	(I) a statement of the child's present levels of academic achievement and functional performance	IEP Present Level Academic Description	How the child's disability affects the child's academic achievement.	Alphanumeric	001705
			IEP Present Level Functional Description	How the child's disability affects the child's functional performance.	Alphanumeric	001706
2	Measurable Annual Goals	(II) a statement of measurable annual goals,	Goal Description	A statement that describes the desired outcomes.	Alphanumeric - 300 characters maximum	000903
3	Progress Monitoring Description	(III) a description of how the child's progress toward meeting the annual goals will be measured	Goal Measurement Description	The procedures and/or instruments that will be used to measure achievement of a goal or short-term objective.	Alphanumeric	001695
4	Special Education Services	(IV) a statement of the special education related services and supplementary aids and services,	Student Support Service Type	Type of related or ancillary services offered or provided to a person or a group of persons within the formal educational system or by an outside agency which provides non-instructional services to support the general welfare of students. This includes physical and emotional health, the ability to select an appropriate course of study, admission to appropriate educational programs, and the ability to adjust to and remain in school through the completion of programs. In serving a student with an identified disability, related services include developmental, corrective, or supportive services required to ensure that the person benefits from special education.	(See Below)	000273
5	Instructional Setting	(V) an explanation of the extent, if any, to which the child will not participate with nondisabled children in the regular class and in the activities	Service Setting Description	Description of the setting in which the services are delivered.	Alphanumeric	001718
6	Accommodations	(VI) a statement of any individual appropriate accommodations that are necessary to measure the academic achievement and functional performance of the child.	Accommodation Type	The specific accommodation necessary for assessment or instruction.	(See Below)	000385
			Accommodation Other Description	The description of the accommodation when 'Accommodation Type' is set to 'Other'.	Alphanumeric - 30 characters maximum	001157

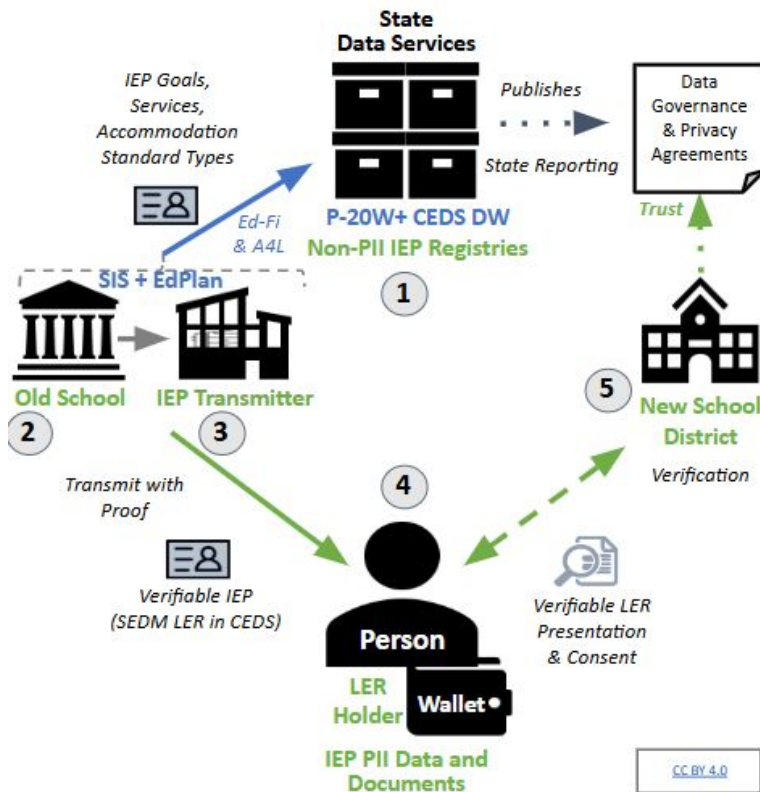
SEDM IEP Portability

Student Record Transfer Domain

The Student Record Transfer domain is to create a package of information that are most needed for transferring student one EdOrg to another one.



SEDM IEP Portability



Recommended Practices:

1. **LER Registry.** In order for a credential to be machine-actionable by an LER reviewer outside of the enterprise in which it was awarded, credentials definitions **should** be securely cataloged and registered with one or more shared registries that address identity, quality, job types, credential descriptions, competency statements, frameworks, crosswalks, and pathways.
2. **LER Award.** Education and work-based learning providers, evaluators, and systems (LER Awarder) **should** log, as structured data, each instance of a claim or revocation by instructor/evaluators that a learner has achieved a skill, experience, or credential, that can be machine-interpretable by unknown future systems.
3. **LER Credential Transmitter.** Credentials transmitted outside the enterprise **should** be wrapped in verifiable credentials (see normative W3C VC and DID).
4. **LER Digital Wallets.** The subject of the LER (or their adult custodial guardian) **should** be able to subscribe, curate, and control access to achievement assertions and other credentials and creating a presentation that is shared with verifying parties including an ability to request, hold, curate, and control.
5. **LER Talent Marketplaces.** Education and employment entities **should** be able to request from a holder controlled access to verifiable credentials to automate actions, validate, and view credentials and other assertions. Education and employment providers can post, invite, review, and verify, and trust.

SEDM is expressed in CEDS RDF

[illegible]

```

<rdf:type rdf:resource="http://www.w3.org/2000/01/rdf-schema#Class"/>
<rdf:Class rdf:about="http://ceeds.ed.gov/terms#RecordStatus">
  <rdf:type rdf:resource="http://www.w3.org/2000/01/rdf-schema#Class"/>
  <rdf:label>Record Status</rdf:label>
  <rdf:comment>
    TBD
  </rdf:comment>
</rdf:Class>

<!-- Data properties for table: RecordStatus -->
<rdf:Property rdf:about="http://ceeds.ed.gov/terms#RecordStatusDate">
  <rdf:type rdf:resource="http://www.w3.org/2000/01/rdf-schema#Property"/>
  <rdf:domainIncludes rdf:resource="http://ceeds.ed.gov/terms#RecordStatus"/>
  <rdf:rangeIncludes rdf:resource="http://www.w3.org/2000/01/rdf-schema#Date"/>
  <dc:creator>Common Education Data Standards/dc:creator
</rdf:Property>

<!-- Object relationship between tables: RecordStatusHistory and Organization -->
<rdf:Property rdf:about="http://ceeds.ed.gov/terms#hasOrganization">
  <rdf:type rdf:resource="http://www.w3.org/2000/01/rdf-schema#Property"/>
  <rdf:label>Has Organization</rdf:label>
  <rdf:domainIncludes rdf:resource="http://ceeds.ed.gov/terms#RecordStatus"/>
  <rdf:rangeIncludes rdf:resource="http://ceeds.ed.gov/terms#Organization"/>
  <dc:creator>Common Education Data Standards/dc:creator
</rdf:Property>

```

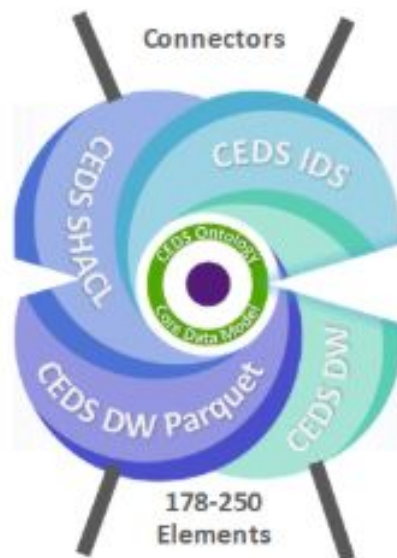
```
ends:0000151shape
  s:sh:PropertyShape !
  sh:path ends:0000151
  sh:name "Name of Institution"
  sh:datatype xsd:string;
  sh:minlength 08 ;

ends:00013505shape
  s:sh:PropertyShape !
  sh:path ends:0001350
  sh:name "Organization Type"
  sh:datatype xsd:anyURI ;
  sh:in {
    ends:N0001351373051 # CourseSection - Course Section
    ends:N0001351373052 # AdultEducationProvider - Adult Education Provider
    ends:N0001351373053 # EmergencyResponseAgency - Emergency Response Agency
    ends:N0001351373054 # EarlyCollege - Early College
    ends:N0001351373055 # Campus - Campus
    ends:N0001351373056 # PostsecondaryInstitution - Postsecondary System
    ends:N0001351373057 # HigherEducation - Higher Education
    ends:N0001351373058 # Course - Course
    ends:N0001351373059 # CharterSchoolAuthorizingOrganization - Charter School Authorizing Organization
    ends:N0001351373060 # PostsecondaryManagementOrganization - Charter School Management Organization
    ends:N0001351373061 # StaffDevelopmentProvider - Staff Development Provider
    ends:N0001351373062 # ServiceProvider - Service Provider
    ends:N0001351373063 # SEA - State Education Agency (SEA)
    ends:N0001351373064 # Recruiter - Recruiter
    ends:N0001351373065 # Program - Program
    ends:N0001351373066 # ProfessionalMembershipOrganization - Professional Membership Organization
    ends:N0001351373067 # PostsecondaryInstitution - Postsecondary Institution
    ends:N0001351373068 # LEA - Local Education Agency (LEA)
    ends:N0001351373069 # K12School - K12 School
    ends:N0001351373070 # Title - Intermediate Educational Inst (Title)
```


SEDM is expressed in CEDS RDF

The SEDM Conceptual Model provides a human consumable document that governs the model and provides context.

Special Ed Data Governance



CEDS Schema



Go to CEDS-SEDM.org for more info



CEDS-SEDM.org



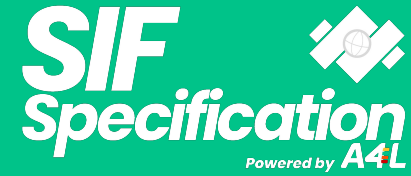
Ross Santy,
Chief Data Officer, USED

*"The **special education data model** is one of the key focus areas and one of the recurring topics that's a real area of interest, and not just interest, but activity in 2026. **It's a great example of what I know we all wanted CEDS to enable and become**, which is there's a very specific problem that agencies at all levels, local and state and others, need to address.*

*"There's **a set of data needed for students in special education under IDEA that's significantly more rigorous and detailed than you need for just anybody**. As soon as you have an individualized education plan, there's a lot of data that's needed.*

*"But it's not just needed for the compliance of the program. That's **one of the six business drivers that's behind the data model**: state reporting. But then you get to those things that are citizen-centric, like the IEP portability, how do you make sure that if that child moves. All the information goes appropriately with them to wherever they're going, and is appropriately protected along the way. That becomes both a technical problem and a definitional problem."*

Join the Conversation



3rd Thu of every month for SEDM@Ed3 at 11AM ET/8AM PT

Custom GPT

Using the CEDS spreadsheet and ontology what are the properties of a K12-Student.

Thought for 2m 32s >

Using the **CEDS V14 spreadsheet** and the **CEDS ontology**, the important modeling point is this:

CEDS does not define a single class named K12Student with its own flat property list.

Instead, a K-12 student is modeled as:

- a **Person** (C200275)
- linked to an organization through **Membership** (C200257)
- with **hasRole = K12 Student** from the **Role** concept scheme (C001946, named individual K12Student)
- and student-specific attributes carried mainly in **K12StudentEnrollment** (C200219) and related student classes.

So, the properties of a "K12-Student" in CEDS are really the union of the core **Person**, **Membership**, and **K12StudentEnrollment** properties, plus linked K12 student subrecords.

1. Core person properties

Custom GPT

Using the CEDS spreadsheet and ontology what are the complete list of organization types?

Thought for 2m 2s >

Using the **CEDS V14 spreadsheet** and the **CEDS ontology**, the complete list of values for **Organization Type** is the **OrganizationType** concept scheme:

- **Concept scheme:** OrganizationType
- **CEDS identifier:** C001156
- **Definition:** "The type of educational organization or entity."
- **CEDS property that uses it:** hasOrganizationType (P001156)
- **Domain:** Organization (C200239)
- **Range:** OrganizationType (C001156)

I found **33 organization types** in that scheme. Here is the complete list.