

Section 4 - TREx XML Standards

Overview

XML schemas function as models for describing the structure of the records being extracted and transmitted through TREx. This includes:

- the sequence in which elements appear;
- the interrelationship between different elements, including parent and child relationships and nesting levels; and
- the types of data that are contained in elements or attributes.

The *TREx Data Standards* manual provides information on the data elements, coded variables, and schema for use by the districts and vendors of local student information systems for the development and maintenance of the extract file process.

Note: *Similar to the TREx Data Standards, the TREx XSD will be updated and republished by TEA annually. Student Information System (SIS) vendors should support updates to the TREx XSD.*

Edits and Validations

The TREx XML schema ensures that student data files from school districts adhere to a common structure and consist of valid elements and attributes. An XML extract file must be syntactically perfect or it is rendered as unacceptable by an XML parser.

Restrictions control acceptable values for XML data elements. Restrictions on XML elements are called facets. In combination with an element's declared data type, restrictions enable the XSD validation process not only to validate the structure of the XML file but also to validate the data values contained within the file against its XML schema definition.

An example of a restriction to validate data commonly used in TREx is for a range of years. To define a rule for the ACADEMIC-YEAR data element so that the values fall within the range of 1957-2012, the TREx schema declares the restriction as:

```
<xs:element name="SchoolYear">
  <xs:simpleType>
    <xs:restriction base="xs:integer">
      <xs:minInclusive value="1957"/>
      <xs:maxInclusive value="2012"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
```

The XML schema also enforces length restrictions for a given element by either an exact length, minimum length, or maximum length. Patterns represent another restriction on data elements if so defined.

TReX Field Edit Overview

Although the districts/campuses are provided with a manual capability to create a student record or transcript in TReX, most districts/campuses submit data in an XML-based extract file. The file is referred to as an extract file because it is created through a vendor-supported process that extracts data from a district's student information system. The extracted data must be consistent with the TReX XML Schema Definition (XSD).

Prior to transmitting the extract file, TReX verifies the structure of the file against the XSD. In addition, the system verifies the contents of the file against the declared data types and restrictions defined for each element in the TReX XSD for each simple type element. The data types and restrictions defined with the TReX XSD constitute the TReX field edits.

TReX Field Edit Restrictions

As previously described in this section, restrictions control acceptable values for XML data elements. Restrictions on XML elements are called facets. In combination with an element's declared data type, restrictions enable the TReX XSD validation process not only to validate the structure of the XML file but also to validate the data values contained within the file against its XML schema definition. Many simple type elements within the TReX XSD have a restriction that limits the domain of acceptable values.

TReX does not transmit extract files improperly structured or containing unacceptable values.

Available TReX XSD Restrictions

Restriction	Description
enumeration	Specifies a list of acceptable values.
minInclusive	Specifies the lower bounds for numeric values. The value must be greater than or equal to this value.
maxInclusive	Specifies the upper bounds for numeric values. The value must be less than this value.
minLength	Specifies the minimum number of characters or list items allowed. Must be equal to or greater than zero.
maxLength	Specifies the maximum number of characters or list items allowed. Must be equal to or greater than zero.
minOccurs	Specifies minimum number of occurrences allowed.
maxOccurs	Specifies maximum number of occurrence allowed.
pattern	Defines the exact sequence of characters that are acceptable.
restriction	Defines the type of data element (e.g. string, integer, etc.).
totalDigits	Specifies the exact number of digits permitted. (Value must be greater than zero.)
whiteSpace	Specifies the use of white space. Denotes line feeds, tabs, spaces, and carriage returns.

Context Edit Overview

TReX uses context edits to verify data elements against the rules set out in the XSD. Each context edit is traced to its associated Edit Number, a description of which follows.

Context Edit Descriptions

Following is a list of TReX Context Edits.

Edit #	Element XML Name	Edit Rule
T001	StudentID	The first character of StudentID must be "S" or "0"-"8".
T002	StudentID	Each character of StudentID must not be the same number.
T003	StudentID	The first three characters of StudentID must not be "000".
T004	StudentID	If first character of StudentID is not an "S", the fourth and fifth characters must not be "00".
T005	StudentID	If first character of StudentID is not an "S", the last four characters must not be "0000".
T006	FirstName, MiddleName, LastName	The FirstName, MiddleName, and/or LastName must only contain the following characters: <ul style="list-style-type: none"> • a-z or A-Z • 0-9 • Apostrophe • Hyphen • Space character
T007	FirstName, MiddleName, LastName	Name must not contain only apostrophes.
T008	FirstName, MiddleName, LastName	Name must not contain only hyphens.
T009	FirstName, LastName	Name must not contain only spaces.
T010	FirstName, MiddleName, LastName	Data elements cannot be repeated as PersonType (student).
T011	FirstName, MiddleName, LastName	Data elements can be repeated as ParentType (parent).
T012	DistrictID	The DistrictID contained within the CampusID must match an entry registered with the TEA.
T013	CampusID	The CampusID must match an entity registered with TEA.
T014	EntryDate	The EntryDate must not be greater than the file submission date.
T015	WithdrawDate	WithdrawDate must not be greater than the current date.
T016	WithdrawDate	WithdrawDate must be greater than ExitDate by at least one day.
T017	ExitDate	ExitDate must be one day less than (earlier) than WithdrawDate.
T018	WithdrawDate, WithdrawReason	If a student in grades 7-12 has withdrawn from school, both fields are required. For grades up to and

Edit #	Element XML Name	Edit Rule
		including grade 6, Withdraw Reason is not required for students who have withdrawn from school but Withdraw Date is required and entered.
T019	DisciplineActionDate	Must be greater than date of extract file creation.
T020	DisciplineActionDate, DisciplineActionCode, DisciplineActionReason	If data are present for any single element, all other elements must include data.
T021	DisciplineActionDate, DisciplineActionCode, DisciplineActionReason	Elements can be repeated on student record if at least one element contains different data from other set.
T022	TestScore, TestDate, TestCode	If TestDate (Assessment Date) is present, data are required in TestScore (Assessment Score) and/or TestCode (Assessment Score Code).
T023	GradeRetained	Must be less than Grade 9.
T024	CertificateDate	Must be blank if date exists in GraduationDate element.
T025	GraduationDate	Must be blank if date exists in CertificateDate element.
T027	ImmunizationDate	If present, data are required for ImmunizationCode.
T028	CreditCampus	CreditCampus must match an entity registered with TEA.

Data and File Requirements

The TREx extracted data are stored in an XML-based file consistent with the TREx XML Schema Definition (XSD) and must follow the XSD standards to be transmitted by TREx.

Rules for XML Schema

While school districts and campuses are responsible for the accuracy of the data transmitted through TREx, TREx verifies the contents of the file against the declared data types and restrictions defined for each element in the TREx XSD. The following business rules apply to XML schemas and the XSD validation process:

- The XML Schema supports a number of built-in data types (e.g., date). When an XML element has a defined data type, a restriction is placed on the element content.
- The XML Schema supports restrictions (edits). In conjunction with the element's declared data type, restrictions are used to control acceptable values for XML elements.
- Declared data types and restrictions enable the XSD validation process.
- The client-side XSD validation process is used to validate the XML file structure and data values against the schema definition.
- If the client-side validation fails, TREx does not transfer the extract file.

Note: For graphical representations of the TREx XSD, reference Appendix C.

TReX XSD Data Types and Restrictions

Following are the TReX data types and restrictions. Restrictions control acceptable values for XML elements. Restrictions used in the XSD validation process validate both the structure of the XML file and the data values against the XML Schema Definition.

Element Name	XML Name	Data Type	Restriction
TX Student Unique ID	StudentUniqueID	String	<ul style="list-style-type: none"> Required if available. 10 digit numeric value.
Student ID	StudentID	String	<ul style="list-style-type: none"> Required element. <p>Public Schools:</p> <ul style="list-style-type: none"> The only acceptable value for the first position is an "S" or a character in the range of 0 to 8. For positions two through nine, the only acceptable value is eight characters in a sequence with each character in a range from 0 to 9. <p>Private Schools:</p> <ul style="list-style-type: none"> The minimum length is 1 and the maximum length is 64 characters.
Prior ID	PriorID	String	<ul style="list-style-type: none"> Optional element. If provided, minimum length of 1 and a maximum length of 9. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ Yzabcdefghijklmnopqrstuvwxyz0123456789 ~ ! @ # \$ % ^ & * () - _ + = : ; " ' , . / < > ?
Local Student ID	LocalID	String	<ul style="list-style-type: none"> Optional element. If provided, minimum length of 1 and a maximum length of 9. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ Yzabcdefghijklmnopqrstuvwxyz0123456789 ~ ! @ # \$ % ^ & * () _ + = : ; " ' , . / < > ?
(Student) First Name	FirstName	String	<ul style="list-style-type: none"> Required element. Limited to a single occurrence. The minimum length is 1 and the maximum length is 30 characters. White space is preserved. The only acceptable value is a sequence of at least 1 to 30 characters with each character either a lower-case a through z, upper-case A through Z, an apostrophe, a hyphen, a 0 through 9, or a space.

Element Name	XML Name	Data Type	Restriction
(Student) Middle Name	MiddleName	String	<ul style="list-style-type: none"> • Optional element. • Limited to a single occurrence. • The minimum length is 1 and the maximum length is 30 characters. • White space is preserved. • The only acceptable value is a sequence of at least 1 to 30 characters with each character either a lower-case a through z, upper-case A through Z, an apostrophe, a hyphen, a 0 through 9, or a space.
(Student) Last Name	LastName	String	<ul style="list-style-type: none"> • Required element. • Limited to a single occurrence. • The minimum length is 1 and the maximum length is 40 characters. • White space is preserved. • The only acceptable value is a sequence of at least 1 to 40 characters with each character either a lower-case a through z, upper-case A through Z, an apostrophe, a hyphen, a 0 through 9, or a space.
(Student) Generation Code	Suffix	String	<ul style="list-style-type: none"> • Optional element. • Maximum length of a single character. • If provided, the only acceptable value is a single character in a rank from 1-9, A- C.
Date of Birth	BirthDate	Date	<ul style="list-style-type: none"> • Required element. • Limited to a single occurrence. • The date type implements an ISO data type in the form of yyyy-mm-dd. • The only acceptable value is a valid date with a minimum value greater than or equal to 1957-01-01 and less than 2040-01-01.
Gender Code	Gender	String	<ul style="list-style-type: none"> • Required element. • Limited to a single occurrence. • Maximum length of a single character. • The only acceptable value is one of the following letters: "M" or "F".
Ethnicity Code	Race	String	<ul style="list-style-type: none"> • Required for Students prior to 2010-2011 School Year. • Limited to a single occurrence. • Maximum length of a single character. • The only acceptable value is a single character in a range from 1 to 5.

Element Name	XML Name	Data Type	Restriction
(Student) Address	Address	String	<ul style="list-style-type: none"> Optional element. Maximum length of fifty characters. White space is preserved. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz01234 56789 ~ ! @ # \$ % ^ & * () - _ + = ; ; “ , . / < > ?
(Student) City	City	String	<ul style="list-style-type: none"> Optional element. Maximum length of thirty characters. White space is preserved. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz01234 56789 ~ ! @ # \$ % ^ & * () - _ + = ; ; “ , . / < > ?
(Student) State	StateProvince	String	<ul style="list-style-type: none"> Optional element. Maximum length of two characters. The only acceptable values are listed in Code Table TC20.
(Student) Zip	PostalCode	String	<ul style="list-style-type: none"> Optional element. Minimum length of five and a maximum length of ten characters. If ten characters provided, must include a hyphen in position six.
(Parent) First Name	FirstName	String	<ul style="list-style-type: none"> Required element. The minimum length is 1 and the maximum length is 30 characters. White space is preserved. The only acceptable value is a sequence of at least 1 to 30 characters with each character either a lower-case a through z, upper-case A through Z, an apostrophe, a hyphen, a 0 through 9, or a space.
(Parent) Middle Name	MiddleName	String	<ul style="list-style-type: none"> Optional element. Maximum length is 30 characters. White space is preserved. The only acceptable value is a sequence of at least 0 to 30 characters with each character either a lower-case a through z, upper-case A through Z, an apostrophe, a hyphen, a 0 through 9, or a space.

Element Name	XML Name	Data Type	Restriction
(Parent) Last Name	LastName	String	<ul style="list-style-type: none"> Required element. The minimum length is 1 and the maximum length is 40 characters. White space is preserved. The only acceptable value is a sequence of at least 1 to 40 characters with each character either a lower-case a through z, upper-case A through Z, an apostrophe, a hyphen, a 0 through 9, or a space.
(Parent) Generation Code	Suffix	String	<ul style="list-style-type: none"> Optional element. Maximum length of a single character. If provided, the only acceptable value is a single character in a rank from 1-9, A-C.
District ID	DistrictID	String	<ul style="list-style-type: none"> Required element. Minimum length of six characters. Must be valid TEA-approved district identification number. Declared as a string data type to allow for zeros in the first position. The only acceptable value is six characters in a sequence with each character in a range from 0 to 9.
District Name	DistrictName	String	<ul style="list-style-type: none"> Optional element. Maximum length of thirty-four characters. White space is preserved. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz01234 56789 ~ ! @ # \$ % ^ & * () - _ + = : ; “ , . / < > ? May not include the following characters: \ { } []
Campus ID	SchoolID	String	<ul style="list-style-type: none"> Required element. Minimum length of nine characters. Must be valid TEA-approved campus identification number. Declared as a string data type to allow for zeros in the first position. The only acceptable value is nine characters in a sequence with each character in a range from 0 to 9.

Element Name	XML Name	Data Type	Restriction
Campus Name	SchoolName	String	<ul style="list-style-type: none"> Required data element. Maximum length of thirty-four characters. White space is preserved. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz0123456789
(Campus) Address	Address	String	<ul style="list-style-type: none"> Optional element. Maximum length of fifty characters. White space is preserved. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz0123456789 ~ ! @ # \$ % ^ & * () - _ + = : ; " ' , . / < > ?
(Campus) City	City	String	<ul style="list-style-type: none"> Optional element. Maximum length of thirty characters. White space is preserved. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz0123456789 ~ ! @ # \$ % ^ & * () - _ + = : ; " ' , . / < > ?
(Campus) State	StateProvince	String	<ul style="list-style-type: none"> Optional element. Maximum length of two characters. The only acceptable values are listed in Code Table TC20.
(Campus) Zip	PostalCode	String	<ul style="list-style-type: none"> Optional element. Minimum length of five and a maximum length of ten characters. If ten characters provided, must include a hyphen in position six.
Country	Country	String	<ul style="list-style-type: none"> Optional element. Maximum length of two characters. The only acceptable values are listed in Code Table TC04. Should default to US.

Element Name	XML Name	Data Type	Restriction
(Campus) Phone	PhoneNumber	String	<ul style="list-style-type: none"> Required element. Maximum length of twenty characters. White space is preserved. Any of the following characters, including the space character, are valid: EXText0123456789 # () -
(Campus) Fax	Fax	String	<ul style="list-style-type: none"> Optional element. Maximum length of twenty characters. White space is preserved. Any of the following characters, including the space character, are valid: EXText0123456789 # () -
Academic Year	SchoolYear	String	<ul style="list-style-type: none"> Required element if student has not graduated. Maximum length of nine characters. Punctuation allowed includes dash. Can be repeated as needed.
Grade Level	GradeLevel	String	<ul style="list-style-type: none"> Required element. Maximum length of two characters. The only acceptable value are EE, PK, KG, and 01 through 12.
Original Entry Date	EntryDate	Date	<ul style="list-style-type: none"> Optional element. Record must contain only one. The date type implements an ISO data type in the form of yyyy-mm-dd. The only acceptable value is a valid date with a minimum value greater than or equal to 1957-01-01 and less than 2040-01-01.
Last Date of Attendance	ExitDate	Date	<ul style="list-style-type: none"> Optional element. Record may contain only one. The date type implements an ISO data type in the form of yyyy-mm-dd. The only acceptable value is a valid date with a minimum value greater than or equal to 1957-01-01 and less than 2040-01-01.
Last Withdrawal Date	WithdrawDate	Date	<ul style="list-style-type: none"> Optional element. Record may contain only one. The date type implements an ISO data type in the form of yyyy-mm-dd. The only acceptable value is a valid date with a minimum value greater than or equal to 1957-01-01 and less than 2040-01-01.

Element Name	XML Name	Data Type	Restriction
Withdrawal Reason	WithdrawReason	String	<ul style="list-style-type: none"> Optional element. Maximum length of two characters. The only acceptable values are listed in Code Table TC23.
Placed in Grade	GradePlaced	String	<ul style="list-style-type: none"> Optional element. Maximum length of two characters. The only acceptable value are EE, PK, KG, and 01 through 12.
Promoted to Grade	GradePromoted	String	<ul style="list-style-type: none"> Optional element. Maximum length of two characters. The only acceptable value are EE, PK, KG, and 01 through 12.
Grade of Retention (PK-8)	GradeRetained	String	<ul style="list-style-type: none"> Optional element. Maximum length of two characters. The only acceptable value are EE, PK, KG, and 01 through 12.
Total Days Present	DaysAttended	String	<ul style="list-style-type: none"> Optional element. Implied decimal within ####.# format. Must end in .0 or .5 (implied decimal).
Total Days Absent	DaysAbsent	String	<ul style="list-style-type: none"> Optional element. Implied decimal within ####.# format. Must end in .0 or .5 (implied decimal).
Home Language	Language	String	<ul style="list-style-type: none"> Optional element. Maximum length of two characters. The only acceptable values are listed in Code Table TC14.
Migrant Indicator	Migrant	String	<ul style="list-style-type: none"> Optional element. Maximum length of one character. The only acceptable value is a single character of 0 or 1.
Foster Care Indicator Code	FosterCare	String	<ul style="list-style-type: none"> Optional element. Maximum length of one character. The only acceptable values are listed in Code Table TC33
Military Connected	MilitaryConnected	String	<ul style="list-style-type: none"> Optional element. Maximum length of one character. The only acceptable values are listed in Code Table TC34
Dyslexia Indicator Code	Dyslexia	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC16 (0/1) Maximum length of one character.
Homeless Indicator	Homeless	String	<ul style="list-style-type: none"> Optional element. Maximum length of one character. The only acceptable values are listed in Code Table TC32.

Element Name	XML Name	Data Type	Restriction
Unschooler Asylee/Refugee Code	AsyleeRefugee	String	<ul style="list-style-type: none"> Optional element. Maximum length of one character. The only acceptable value is a single character of 0,1 or 2.
LEP (Limited English Proficiency) Indicator	LEP	String	<ul style="list-style-type: none"> Optional element. Maximum length of one character. The only acceptable values are 0, 1, F, or S.
Economically Disadvantaged Indicator	EconomicDisadvanta ged	String	<ul style="list-style-type: none"> Optional element. Maximum length of two characters. The only acceptable values are listed in Code Table TC08.
At Risk Indicator	AtRisk	String	<ul style="list-style-type: none"> Optional element. Maximum length of one character. The only acceptable value is a single character of 0 or 1.
Title I Part A Indicator	TitleI	String	<ul style="list-style-type: none"> Optional element. Maximum length of one character. The only acceptable value is a single character of 0, A, 6, 7, 8, or 9.
Special Education Indicator	SpecialEd	String	<ul style="list-style-type: none"> Optional element. Maximum length of one character. The only acceptable value is a single character of 0 or 1.
IEP (Individualized Education Program) Indicator	IEP	String	<ul style="list-style-type: none"> Optional element. Maximum length of one character. The only acceptable value is a single character of 0 or 1.
Bilingual Indicator	Bilingual	String	<ul style="list-style-type: none"> Optional element. Maximum length of one character. If provided, the only acceptable values are 0, 2, 3, 4, or 5.
ESL (English as Second Language) Indicator	ESL	String	<ul style="list-style-type: none"> Optional element. Maximum length of one character. The only acceptable values are 0, 2, or 3.
Gifted/Talented Indicator	GiftedTalented	String	<ul style="list-style-type: none"> Optional element. Maximum length of one character. If provided, the only acceptable value is a single character in a rank from 0 through 2
Career Tech Ed Indicator	CTE	String	<ul style="list-style-type: none"> Optional element. Maximum length of one character. If provided, the only acceptable value is a single character of 0 though 3.

Element Name	XML Name	Data Type	Restriction
Personal Graduation Plan	PersonalGradPlan	String	<ul style="list-style-type: none"> Optional element. Maximum length of one character. The only acceptable value is a single character of 0 or 1.
Assessment Name	TestName	String	<ul style="list-style-type: none"> Optional element. May be repeated for each assessment. Maximum length of two digits. If provided, the only acceptable values are listed in Code Table TC01. If provided, then the TestDate and TestScore or TestCode are required. If provided, then AdditionalTestName must be blank within each assessment.
Assessment Grade Level	TestLevel	String	<ul style="list-style-type: none"> Optional element. May be repeated for each assessment. Maximum length of two characters. If provided, the only acceptable values are listed in Code Table TC12.
Assessment Score	TestScore	String	<ul style="list-style-type: none"> Optional element. May be repeated for each assessment. If provided, then TestName or AdditionalTestName and TestDate are required. Maximum length of six characters. Any of the following characters, including the space character, are valid: ABCDEF GHIJ KLMNOP QRSTUV WX YZabcde fghijk lmnopq rstuvw xy01234 56789 ~ ! @ # \$ % ^ & * () - _ + = : ; " ' , . / < > ?

Element Name	XML Name	Data Type	Restriction
Assessment Date	TestDate	Date	<ul style="list-style-type: none"> • Optional element. • May be repeated for each assessment. • If provided, then TestName and TestScore or Test Code are required. • Maximum length of seven characters. • The date type implements an ISO data type in the form of yyyy-mm. • The only acceptable value is a valid date with a minimum value greater than or equal to 1957-01 and less than 2040-01. • For STAAR® EOC, mm value 13 indicates Fall, 15 indicates Spring and 16 indicates Summer testing windows.
Assessment Date Exit Requirement Met	ExitRequirementMet Date	Date	<ul style="list-style-type: none"> • Optional element. • May be repeated for each assessment. • Maximum length of seven characters. • The date type implements an ISO data type in the form of yyyy-mm. • The only acceptable value is a valid date with a minimum value greater than or equal to 1957-01 and less than 2040-01.
Assessment Score Code	TestCode	String	<ul style="list-style-type: none"> • Optional element. • May be repeated for each assessment. • If provided, then TestName or AdditionalTestName and TestDate are required. • Maximum length of a single character. • The only acceptable values are listed in Code Table TC02.
STAAR Performance Level	PerformanceLevel	String	<ul style="list-style-type: none"> • Optional Element • May be repeated for each assessment. • If provided, then TestName or AdditionalTestName and TestDate are required. • Maximum length of a single character. • The only acceptable values are listed in Code Table TC31. •

Element Name	XML Name	Data Type	Restriction
Additional Test Name	AdditionalTestName	String	<ul style="list-style-type: none"> Optional element If provided, then TestName must be blank within each Assessment. Maximum length of 60 characters If provided, then the TestDate and TestScore or TestCode are required.
Assessment Subtest	SubTestName	String	<ul style="list-style-type: none"> Optional element. Maximum length of 60 characters. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz01234 56789 ~ ! @ # \$ % ^ & * () - _ + = : ; " ' , . / < > ?
Assessment Subtest Score	SubTestScore	String	<ul style="list-style-type: none"> Optional element Maximum length of 6 characters If provided, then the SubTestName and TestDate are required. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz01234 56789 ~ ! @ # \$ % ^ & * () - _ + = : ; " ' , . / < > ?
Course Category	SubjectArea	String	<ul style="list-style-type: none"> Optional element. May be repeated for each course or academic year. Maximum length of four characters. The only acceptable values are listed in Code Table TC05
Class Period	ClassPeriod	String	<ul style="list-style-type: none"> Optional element. May be repeated for each course or academic period. Maximum length of five characters. White space is preserved. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz01234 56789 ~ ! @ # \$ % ^ & * () - _ + = : ; " ' , . / < > ?

Element Name	XML Name	Data Type	Restriction
Course Name	CourseTitle	String	<ul style="list-style-type: none"> Optional element. May be repeated for each course or academic period. Maximum length of one hundred characters. White space is preserved. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz01234 56789 ~ ! @ # \$ % ^ & * () - _ + = : ; " ' , . / < > ?
Course Abbreviation	Abbreviation	String	<ul style="list-style-type: none"> Optional element May be repeated. Maximum length of one hundred characters. White space is preserved. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz01234 56789 ~ ! @ # \$ % ^ & * () - _ + = : ; " ' , . / < > ?
Course Number	CourseID	String	<ul style="list-style-type: none"> Optional element. May be repeated for each course or academic period. Maximum length of eight characters for public schools. Maximum length of 64 characters for private schools. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz01234 56789 ~ ! @ # \$ % ^ & * () - _ + = : ; " ' , . / < > ?
Course Semester	Semester	String	<ul style="list-style-type: none"> Optional element. May be repeated for each course or academic period. Maximum length of one digit.

Element Name	XML Name	Data Type	Restriction
Course Grade	CourseGrade	String	<ul style="list-style-type: none"> Optional element. May be repeated for each course. Maximum length of ten characters. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz01234 56789 ~ ! @ # \$ % ^ & * () - _ + = ; ; “ , . / < > ?
Withdrawal Course Grade	WithdrawGrade	String	<ul style="list-style-type: none"> Optional element. May be repeated for each course. Maximum length of fifteen characters. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz01234 56789 ~ ! @ # \$ % ^ & * () - _ + = ; ; “ , . / < > ?
Course Grade Average	GradeAverage	String	<ul style="list-style-type: none"> Optional element. May be repeated for each course. Maximum length of ten characters. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz01234 56789 ~ ! @ # \$ % ^ & * () - _ + = ; ; “ , . / < > ?
Final Grade Average	FinalGradeAverage	String	<ul style="list-style-type: none"> Optional element. May be repeated for each course. Maximum length of ten characters. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz01234 56789 ~ ! @ # \$ % ^ & * () - _ + = ; ; “ , . / < > ?
Course Credit	CourseCredit	String	<ul style="list-style-type: none"> Optional element. May be repeated for each course. Implied decimal within ## format.
Pass/Fail Credit Indicator	PassFailCredit	String	<ul style="list-style-type: none"> Optional element. May be repeated for each course, Maximum length of two characters. If present, the only acceptable values are listed in Code Table TC25.

Element Name	XML Name	Data Type	Restriction
Course Teacher	CourseTeacher	String	<ul style="list-style-type: none"> Optional element. May be repeated for each CourseTitle. Maximum length of forty characters. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz01234 56789 ~ ! @ # \$ % ^ & * () - _ + = ; " ' , . / < > ?
Semester Sequence	SemesterSeq	String	<ul style="list-style-type: none"> Optional element. Maximum length of a single character. May be repeated for each course or AcademicSessionType. If present, the only acceptable values are 0 through A.
Special Explanation Code	Explanation	String	<ul style="list-style-type: none"> Optional element. Maximum length of a single character. May be repeated for each course. If present, the only acceptable values are listed in Code Table TC19.
Campus Awarding Credit	CreditCampus	String	<ul style="list-style-type: none"> Optional element. Minimum length of nine characters. Must be valid TEA-approved campus identification number. Declared as a string data type to allow for zeros in the first position. The only acceptable value is nine characters in a sequence with each character in a range from 0 to 9.
Class Rank	ClassRank	String	<ul style="list-style-type: none"> Optional element. Maximum length of five digits. If provided, the only acceptable value is a range from 0 through 99999.
Number in Class	ClassTotalNumber	String	<ul style="list-style-type: none"> Optional element. Maximum length of five digits. If provided, the only acceptable value is a range from 1 through 99999.
Date of Ranking	ClassRankingDate	Date	<ul style="list-style-type: none"> Optional element. The date type implements an ISO data type in the form of yyyy-mm-dd. The only acceptable value is a valid date with a minimum value greater than or equal to 1957-01-01 and less than 2040-01-01.

Element Name	XML Name	Data Type	Restriction
Quartile	Quartile	String	<ul style="list-style-type: none"> Optional element. Maximum length of a single character. If present, the only acceptable value is a single character in a rank from 1 through 4.
Grade Point Average	GPA	String	<ul style="list-style-type: none"> Optional element. Maximum length of ten characters. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ Yabcdefghijklmnopqrstuvwxyz01234 56789 ~ ! @ # \$ % ^ & * () - _ + = : ; " ' , . / < > ?
Graduation Date	GraduationDate	Date	<ul style="list-style-type: none"> Optional element. The date type implements an ISO data type in the form of yyyy-mm. The only acceptable value is a valid date with a minimum value greater than or equal to 1957-01 and less than 2052-01.
Graduation Program Type	GraduationDiplomaType	String	<ul style="list-style-type: none"> Optional element if GradeLevel 10 or lower. Maximum length of two characters. If provided, the only acceptable values are listed in Code Table TC13.
Certification of Coursework Completion Date	CertificateDate	Date	<ul style="list-style-type: none"> Optional element. The date type implements an ISO data type in the form of yyyy-mm-dd. The only acceptable value is a valid date with a minimum value greater than or equal to 1957-01-01 and less than 2040-01-01.
College Board Campus Code	CollegeCampusCode	String	<ul style="list-style-type: none"> Optional element. Maximum length of six characters. Declared as a string data type to allow for zeros in the first position. The only acceptable value is six characters in a sequence with each character in a range from 0 to 9.
Texas Grant Indicator	TexasGrant	String	<ul style="list-style-type: none"> Optional element. Maximum length of a single character. The only acceptable values are listed in Code Table TC21
FHSP Participant Code	FHSPParticipantCode	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC35 Maximum length of one character. Optional element.

Element Name	XML Name	Data Type	Restriction
FHSP Disting Level Achieve Indicator Code	FHSPDistingIndicatorCode	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC35 Maximum length of one character. Optional element.
Arts and Humanities Endorsement Indicator Code	ArtsEndorsementCode	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC35 Maximum length of one character. Optional element.
Business and Industry Endorsement Indicator Code	BusinessEndorsementCode	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC35 Maximum length of one character. Optional element.
Multi Disciplinary Studies Endorsement Indicator Code	MultiStudiesEndorsementCode	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC35 Maximum length of one character. Optional element.
Public Services Endorsement Indicator Code	PublicServicesEndorsementCode	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC35 Maximum length of one character. Optional element.
STEM Endorsement Indicator Code	STEMEndorsementCode	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC35 Maximum length of one character. Optional element.
Performance Acknowledgment AP IB Exams	AplbType	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC36 Maximum length of three characters. Optional element.
Performance Acknowledgment Bilingualism/Biliteracy	BilingBilitType	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC37 Maximum length of one character. Optional element.
Performance Acknowledgment Certification Licensures	CertLicType	String	<ul style="list-style-type: none"> Text field. Maximum length 61 characters. Optional element.
Performance Acknowledgment College Readiness Assessments	CollegeAssessType	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC38 Maximum length of one character. Optional element.
Performance Acknowledgment Dual Credit	DualCreditType	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC39 Maximum length of one character. Optional element.

Element Name	XML Name	Data Type	Restriction
Immunization Name	ImmunizationCode	String	<ul style="list-style-type: none"> Optional element. Maximum length of thirty-five characters. Any of the following characters, including the space character, are valid: ABCDEFGHIJKLMNOPQRSTUVWXYZ YZabcdefghijklmnopqrstuvwxyz0123456789 ~ ! @ # \$ % ^ & * () - _ + = : ; " ' , . / < > ?
Immunization Dose	ImmunizationDose	Integer	<ul style="list-style-type: none"> Optional element Maximum length of two digits.
Immunization Date	ImmunizationDate	Date	<ul style="list-style-type: none"> Optional element. The date type implements an ISO data type in the form of yyyy-mm-dd. The only acceptable value is a valid date with a minimum value greater than or equal to 1957-01-01 and less than 2040-01-01.
Disciplinary Action End Date	DisciplineActionDate	Date	<ul style="list-style-type: none"> Optional element. The date type implements an ISO data type in the form of yyyy-mm-dd. The only acceptable value is a valid date with a minimum value greater than current date (date record is created).
Disciplinary Action Number	DisciplineActionNum	String	<ul style="list-style-type: none"> Optional element. Maximum length of three characters.
Disciplinary Action Code	DisciplineActionCode	String	<ul style="list-style-type: none"> Optional element. Maximum length of two characters. If provided, the only acceptable values are listed in Code Table TC06.
Disciplinary Action Reason	DisciplineActionReason	String	<ul style="list-style-type: none"> Optional element. Maximum length of two characters. If provided, the only acceptable values are listed in Code Table TC07.
Distinguished Achievement	DistinguishedAchievement	String	<ul style="list-style-type: none"> Optional element. Maximum occurrence is one.
Advanced Measure	AdvancedMeasure	String	<ul style="list-style-type: none"> Optional element. Maximum occurrence is four. The only acceptable values are listed in Code Table TC29
American Indian-Alaska Native	AmericanIndianAlaskaNativeCode	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC16 (0/1) Maximum length of one character. Optional element.

Element Name	XML Name	Data Type	Restriction
Asian	AsianCode	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC16 (0/1) Maximum length of one character. Optional element.
Black-African American	BlackAfricanAmericanCode	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC16 (0/1) Maximum length of one character. Optional element.
Native Hawaiian-Pacific Islander	NativeHawaiianPacificIslanderCode	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC16 (0/1) Maximum length of one character. Optional element.
White	WhiteCode	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC16 (0/1) Maximum length of one character. Optional element.
Hispanic-Latino	HispanicLatinoCode	String	<ul style="list-style-type: none"> The only acceptable values are listed in Code Table TC16 (0/1) Maximum length of one character. Optional element.

Example of TReX Instance

Following is an example of the XSD for an extract file for a student record. Please reference Appendix B of this manual for an example of the full TReX XML schema.

```
<?xml version="1.0" encoding="UTF-8" ?>
- <trex:TRExStudentRecords xmlns:trex="urn:us:tx:state:tea:TREx:v1.9"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
- <TRExStudentRecord>
- <StudentIdentification>
- <StudentUniqueID>1234567890</StudentUniqueID>
- <Name>
- <FirstName>Joe</FirstName>
- <MiddleName>Q</MiddleName>
- <LastName>Jones</LastName>
- <Suffix>1</Suffix>
- </Name>
- <StudentID>333224444</StudentID>
- <Address>
- <Address>101 Congress Ave.</Address>
- <City>Austin</City>
- <StateProvince>TX</StateProvince>
- <PostalCode>78701</PostalCode>
- </Address>
- </StudentIdentification>
- <Parent>
- <Name>
- <FirstName>Cassandra</FirstName>
- <LastName>Jones</LastName>
- </Name>
- </Parent>
- <Parent>
- <Name>
- <FirstName>George</FirstName>
- <LastName>Smith</LastName>
- </Name>
- </Parent>
- <StudentDemographic>
- <Gender>M</Gender>
- <Race>5</Race>
- <Ethnicity>
- <AmericanIndianAlaskaNativeCode>0</AmericanIndianAlaskaNativeCode>
- <AsianCode>1</AsianCode>
- <BlackAfricanAmericanCode>1</BlackAfricanAmericanCode>
- <HispanicLatinoCode>1</HispanicLatinoCode>
- <NativeHawaiianPacificIslanderCode>0</NativeHawaiianPacificIslanderCode>
- <WhiteCode>0</WhiteCode>
- </Ethnicity>
- <BirthDate>1997-4-1</BirthDate>
- <Language>98</Language>
```

```
<Migrant>0</Migrant>
<FosterCare>0</FosterCare >
<MilitaryConnected>3</MilitaryConnected >
<Dyslexia>0</Dyslexia >
<Homeless>1</Homeless>
<AsyleeRefugeeCode>2</AsyleeRefugeeCode>
  </StudentDemographic>
= <School>
  <SchoolID>005555555</SchoolID>
  <SchoolName>Bar School</SchoolName>
  <DistrictID>005555</DistrictID>
  <DistrictName>Bar Partner</DistrictName>
= <Address>
  <Address>4103 Slaughter Lane</Address>
  <City>Austin</City>
  <Country>US</Country>
  <PostalCode>78749</PostalCode>
    </Address>
  <PhoneNumber>5124145247</PhoneNumber>
  <Fax>5122920527</Fax>
    </School>
= <Enrollment>
  <GradeLevel>09</GradeLevel>
  <EntryDate>2002-8-30</EntryDate>
  <ExitDate>2007-1-3</ExitDate>
  <WithdrawDate>2007-3-1</WithdrawDate>
  <WithdrawReason>01</WithdrawReason>
  <GradePromoted>11</GradePromoted>
    </Enrollment>
= <SpecialPrograms>
  <LEP>0</LEP>
  <EconomicDisadvantaged>00</EconomicDisadvantaged>
  <AtRisk>0</AtRisk>
  <TitleI>0</TitleI>
  <SpecialEd>0</SpecialEd>
  <IEP>0</IEP>
  <Bilingual>0</Bilingual>
  <ESL>0</ESL>
  <GiftedTalented>2</GiftedTalented>
  <CTE>0</CTE>
  <PersonalGradPlan>0</PersonalGradPlan>
    </SpecialPrograms>
= <Assessment>
  <TestName>01</TestName>
  <TestLevel>10</TestLevel>
  <TestDate>2006-3</TestDate>
  <TestScore>100</TestScore>
    </Assessment>
= <Assessment>
  <TestName>05</TestName>
```



```

    <TestLevel>11</TestLevel>
    <TestDate>2007-3</TestDate>
    <TestScore>100</TestScore>
  </Assessment>
- <Assessment>
  <TestName>06</TestName>
  <TestLevel>11</TestLevel>
  <TestDate>2007-3</TestDate>
  <TestScore>100</TestScore>
  </Assessment>
- <Assessment>
  <TestName>11</TestName>
  <TestLevel>10</TestLevel>
  <TestDate>2007-04</TestDate>
  <ExitRequirementMetDate>2007-05</ExitRequirementMetDate>
  <TestScore>Exempt</TestScore>
  <TestCode>D</TestCode>
  </Assessment>
- <Assessment>
  <TestName>12</TestName>
  <TestLevel>10</TestLevel>
  <TestDate>2007-02</TestDate>
  <ExitRequirementMetDate>2007-05</ExitRequirementMetDate>
  <TestScore>2100</TestScore>
  </Assessment>
- <Assessment>
  <TestName>14</TestName>
  <TestLevel>10</TestLevel>
  <TestDate>2007-02</TestDate>
  <ExitRequirementMetDate>2007-03</ExitRequirementMetDate>
  <TestScore>2100</TestScore>
- <AssessmentSubTest>
  <SubTestName>TAKS Writing</SubTestName>
  <SubTestScore>1000</SubTestScore>
  </AssessmentSubTest>
  </Assessment>
- <Assessment>
  <TestName>47</TestName>
  <TestLevel>10</TestLevel>
  <TestDate>2012-04</TestDate>
  <TestScore>1850</TestScore>
  <PerformanceLevel>2</PerformanceLevel>
  </Assessment>

- <Attendance>
  <DaysAttended>80</DaysAttended>
  <DaysAbsent>0</DaysAbsent>
  </Attendance>
- <Immunization>
  <ImmunizationCode>DTP</ImmunizationCode>

```

```
<ImmunizationDate>2002-4-1</ImmunizationDate>
<ImmunizationDose>25</ImmunizationDose>
</Immunization>
- <DisciplineAction>
  <DisciplineActionDate>2010-12-21</DisciplineActionDate>
  <DisciplineActionCode>25</DisciplineActionCode>
  <DisciplineActionReason>26</DisciplineActionReason>
  </DisciplineAction>
- <AcademicStatus>
  <GraduationDate>2015-06</GraduationDate>
  <GraduationDiplomaType>34</GraduationDiplomaType>
  <TexasGrant>0</TexasGrant>
  <FHSPParticipantCode>1</FHSPParticipantCode>
  <FHSPDistingIndicatorCode>1</FHSPDistingIndicatorCode>
  <MultiStudiesEndorsementCode>2</MultiStudiesEndorsementCode>
  <STEMEndorsementCode>1</STEMEndorsementCode>
  <DualCreditType>
    <DualCreditCodeType>1</DualCreditCodeType>
    <MetDate>2013-05</MetDate>
  </DualCreditType>
  <BilingBilitType>
    <BilingBilitCodeType>1</BilingBilitCodeType>
    <MetDate>2013-01</MetDate>
  </BilingBilitType>
  <CollegeAssessType>
    <CollegeAssessCodeType>3</CollegeAssessCodeType>
    <MetDate>2012-02</MetDate>
  </CollegeAssessType>
  <APIBType>
    <ApIbCodeType>2</ApIbCodeType>
    <MetDate>2013-05</MetDate>
  </APIBType>
  <APIBType>
    <ApIbCodeType>115</ApIbCodeType>
    <MetDate>2011-11</MetDate>
  </APIBType>
  <CertLicType>
    <CertLicCodeType>MicroSoft Developer Network</CertLicCodeType>
    <MetDate>2012-08</MetDate>
  </CertLicType>
- <DistinguishedAchievements>
  <AdvancedMeasure>A</AdvancedMeasure>
  <AdvancedMeasure>D</AdvancedMeasure>
  <AdvancedMeasure>E</AdvancedMeasure>
  <AdvancedMeasure>F</AdvancedMeasure>
  </DistinguishedAchievements>
</AcademicStatus>
- <CurrentCoursework>
- <Course>
  <CourseTitle>Algebra I 2092</CourseTitle>
  <CourseID>03100500</CourseID>
```

```

<Semester>1</Semester>
<ClassPeriod>6</ClassPeriod>
<SubjectArea>MA</SubjectArea>
<CourseGrade>95</CourseGrade>
<Explanation>A</Explanation>
<CourseTeacher>Smith</CourseTeacher>
</Course>
<SchoolYear>2006-2007</SchoolYear>
<GradeLevel>09</GradeLevel>
</CurrentCoursework>
- <AcademicSession>
  <SchoolYear>2006-2007</SchoolYear>
  <GradeLevel>08</GradeLevel>
- <Course>
  <CourseTitle>English 3 1030</CourseTitle>
  <CourseID>03220300</CourseID>
  <Semester>1</Semester>
  <ClassPeriod>1</ClassPeriod>
  <SubjectArea>ELA</SubjectArea>
  <CourseGrade>90</CourseGrade>
  <CourseGrade>95</CourseGrade>
  <CourseGrade>100</CourseGrade>
  <GradeAverage>95</GradeAverage>
  <SemesterSeq>1</SemesterSeq>
  </Course>
- <Course>
  <CourseTitle>Biology 3091</CourseTitle>
  <CourseID>03010200</CourseID>
  <Semester>1</Semester>
  <ClassPeriod>2</ClassPeriod>
  <SubjectArea>SC</SubjectArea>
  <CourseGrade>90</CourseGrade>
  <CourseGrade>91</CourseGrade>
  <CourseGrade>92</CourseGrade>
  <GradeAverage>91</GradeAverage>
  <SemesterSeq>1</SemesterSeq>
  </Course>
- <Course>
  <CourseTitle>English 3 1030</CourseTitle>
  <CourseID>03220300</CourseID>
  <Semester>2</Semester>
  <ClassPeriod>1</ClassPeriod>
  <SubjectArea>ELA</SubjectArea>
  <CourseGrade>85</CourseGrade>
  <CourseGrade>85</CourseGrade>
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  <GradeAverage>85</GradeAverage>
  <CourseCredit>1.0</CourseCredit>
  <SemesterSeq>2</SemesterSeq>
  <FinalGradeAverage>90</FinalGradeAverage>

```

```
    </Course>
- <Course>
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  <CourseID>03010200</CourseID>
  <Semester>2</Semester>
  <ClassPeriod>2</ClassPeriod>
  <SubjectArea>SC</SubjectArea>
  <CourseGrade>70</CourseGrade>
  <CourseGrade>75</CourseGrade>
  <CourseGrade>78</CourseGrade>
  <GradeAverage>74</GradeAverage>
  <CourseCredit>1.0</CourseCredit>
  <SemesterSeq>2</SemesterSeq>
  <FinalGradeAverage>83</FinalGradeAverage>
  </Course>
- <AcademicSummary>
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  </AcademicSummary>
  </AcademicSession>
- <AcademicSummary>
  <GPA>3.0</GPA>
  <ClassTotalNumber>200</ClassTotalNumber>
  <ClassRank>15</ClassRank>
  <ClassRankingDate>2006-12-1</ClassRankingDate>
  <Quartile>1</Quartile>
  </AcademicSummary>
  </TReXStudentRecord>
  </trex:TReXStudentRecords>
```

TREx Complex Types

Following is a list of the complex types and groups included in the TREx XML schema. Please refer to Appendix B for a full copy of the TREx XML Schema.

Complex Type Name	Sequence
AcademicSessionType	SchoolYear GradeLevel SessionType CourseType AcademicSummaryType
AcademicStatusType	GraduationDate GraduationDiplomaType CertificateDate TexasGrantType DistinguishedAchievements FHSPParticipantCode FHSPDistingIndicatorCode STEMEndorsementCode BusinessEndorsementCode PublicServicesEndorsementCode ArtsEndorsementCode MultiStudiesEndorsementCode DualCreditType BilingBilitType CollegeAssessType AplbType CertLicType
AcademicSummaryType	GPA ClassTotalNumber ClassRank ClassRankingDate Quartile CollegeCampusCode
AddressType	Address City StateProvince Country PostalCode
AssessmentType	TestName TestLevel TestDate ExitRequirementMetDate TestScore TestCode PerformanceLevel AssessmentSubTest
AssessmentSubTestType	SubTestName SubTestScore

Complex Type Name	Sequence
AttendanceType	DaysAttended DaysAbsent
CourseType	CourseTitle CourseID Abbreviation Semester ClassPeriod SubjectArea CourseGrade WithdrawGrade GradeAverage CourseCredit PassFailCredit Explanation CourseTeacher CreditCampus SemesterSeq FinalGradeAverage
CurrentCourseworkType	CourseType SchoolYear GradeLevel SessionType
DisciplineActionType	DisciplineActionDate DisciplineActionNum DisciplineActionCode DisciplineActionReason
DistinguishedAchievementType	AdvancedMeasure
EnrollmentType	GradeLevel EntryDate ExitDate WithdrawDate WithdrawReason GradePlaced GradePromoted GradeRetained
EthnicityType	AmericanIndianAlaskaNativeCode AsianCode BlackAfricanAmericanCode HispanicLatinoCode NativeHawaiianPacificIslanderCode WhiteCode
ImmunizationType	ImmunizationCode ImmunizationDate ImmunizationDose
ParentType	PersonNameType

Complex Type Name	Sequence
PersonNameType	FirstName MiddleName LastName Suffix
PhoneNumberGroup	PhoneNumber Fax
SchoolType	SchoolID SchoolName DistrictID DistrictName AddressType PhoneNumberGroup
SpecialProgramsType	LEP EconomicDisadvantaged AtRisk TitleI SpecialEd IEP Bilingual ESL GiftedTalented CTE Personal Graduation Plan
StudentDemographicType	Gender Race BirthDate Language Migrant Foster Care MilitaryConnected Dyslexia Homeless AsyleeRefugee
StudentIdentificationType	StudentUniqueID PersonNameType StudentID PriorID LocalID AddressType
Student RecordType	StudentIdentificationType ParentType StudentDemographicType SchoolType EnrollmentType SpecialProgramsType

Complex Type Name

Sequence

AssessmentType
AttendanceType
ImmunizationType
DisciplineActionType
AcademicStatusType
CurrentCourseworkType
AcademicSessionType
AcademicSummaryType

TREx Simple Types

Following is a list of the simple types found in the TREx XML schema:

Common Name

Academic Year
Additional Test Name
Address (Student/Campus)
Advanced Measure
American Indian-Alaska Native
Arts and Humanities Endorsement Indicator Code
Asian
Assessment Date
Assessment Date Exit Requirement Met
Assessment Grade Level
Assessment Name
Assessment Score
Assessment Score Code
Assessment SubTest
Assessment SubTest Score
At Risk Indicator
Bilingual Indicator
Black-African American
Business and Industries Endorsement Indicator Code
Campus Awarding Credit
Campus Fax
Campus ID
Campus Name
Campus Phone
Career and Tech Ed Indicator
Certification of Coursework Completion
City (Student/Campus)
Class Period
Class Rank
College Board Campus Code
Country
Course Abbreviation
Course Category
Course Credit
Course Grade
Course Grade Average
Course Name
Course Number
Course Semester
Course Teacher
Date of Birth
Date of Ranking
Disciplinary Action Code
Disciplinary Action End Date
Disciplinary Action Number
Disciplinary Action Reason

Simple Name

SchoolYear
AdditionalTestName
Address
AdvancedMeasure
AmericanIndianAlaskaNativeCode
ArtsEndorsementCode
AsianCode
TestDate
ExitRequirementMetDate
TestLevel
TestName
TestScore
TestCode
SubTestName
SubTestScore
AtRisk
Bilingual
BlackAfricanAmericanCode
BusinessEndorsementCode
CreditCampus
Fax
SchoolID
SchoolName
PhoneNumber
CTE
CertificateDate
City
ClassPeriod
ClassRank
CollegeCampusCode
Country
Abbreviation
SubjectArea
CourseCredit
CourseGrade
GradeAverage
CourseTitle
CourseID
Semester
CourseTeacher
BirthDate
ClassRankingDate
DisciplineActionCode
DisciplineactionDate
DisciplineActionNum
DisciplineActionReason

Following is a list of the simple types found in the TREx XML schema:

Common Name

District Name
Dyslexia Indicator Code
Economically Disadvantaged Indicator
ESL (English as Second Language) Indicator
Ethnicity
FHSP Disting Level Achieve Indicator Code
FHSP Participant Code
Final Grade Average
First Name (Student/Parent)
Foster Care Indicator Code
Gender Code
Generation Code (Student/Parent)
Gifted/Talented Indicator
Grade Level
Grade of Retention
Grade Point Average
Graduation Date
Graduation Program Type
Hispanic Latino
Home Language
Homeless Indicator
IEP (Individualized Education Program) Indicator
Immunization Date
Immunization Description
Immunization Dose
Last Date of Attendance
Last Name (Student/Parent)
Last Withdrawal Date
LEP (Limited English Proficiency) Indicator
Local Student ID
Middle Name (Student/Parent)
Migrant Indicator
Military Connected
Multi Disciplinary Studies Endorsement Indicator Code
Native Hawaiian Pacific Islander
Number in Class
Original Entry Date
Pass/Fail Credit Indicator
Performance Acknowledgment AP IB
Performance Acknowledgment
Bilingualism/Biliteracy
Performance Acknowledgment College Readiness Assessment
Performance Acknowledgment Dual Credit
Personal Graduation Plan
Placed In Grade

Simple Name

DistrictName
Dyslexia
EconomicDisadvantaged
ESL
Race
FHSPDistingIndicatorCode
FHSPParticipantCode
FinalGradeAverage
FirstName
FosterCare
Gender
Suffix
GiftedTalented
GradeLevel
GradeRetained
GPA
GraduationDate
GraduationDiplomaType
HispanicLatinoCode
Language
Homeless
IEP
ImmunizationDate
ImmunizationCode
ImmunizationDose
ExitDate
LastName
WithdrawDate
LEP
LocalID
MiddleName
Migrant
MilitaryConnected
MultiStudiesEndorsementCode

NativeHawaiianPacificIslanderCode
ClassTotalNumber
EntryDate
PassFailCredit
PerfAckAplbCode

PerfAckBilingBilitCode
PerfAckCollegeAssessCode
PerfAckDualCreditCode
PersonalGradPlan
GradePlaced

Following is a list of the simple types found in the TREx XML schema:

Common Name

Prior ID
Promoted To Grade
Public Services Endorsement Indicator Code
Quartile
Race/Ethnicity
Semester Sequence
Session Type
Special Education Indicator
Special Explanation
STAAR Performance Level
State (Student/Campus)
STEM Endorsement Indicator Code
Student ID
Texas Grant Indicator
Title I Part A Indicator
Total Days Absent
Tx Student Unique ID
Unschoolled Asylee/Refugee
White
Withdrawal Course Grade
Withdrawal Reason
Zip (Student/Campus)

Simple Name

PriorID
GradePromoted
PublicServicesEndorsementCode
Quartile
Ethnicity
SemesterSeq
SessionType
SpecialEd
Explanation
PerformanceLevel
StateProvince
STEMEndorsementCode
StudentID
TexasGrant
TitleI
DaysAbsent
StudentUniqueID
AsyleeRefugee
WhiteCode
WithdrawGrade
WithdrawReason
PostalCode

TREx Enumerated Values

Following is a list of the data elements with enumerated values. These are described further in Sections 2 and 3 of this manual, as well as included in the schema in Appendix B.

Code Table Common Name	Element XML Short Name	Location
Advanced Measure	AdvancedMeasure	Student Record; Transcript
Assessment Name	TestName	Student Record; Transcript
Assessment Score Code	TestCode	Student Record
Bilingual Program Type Code	Bilingual	Student Record
Career Tech Ed Indicator	CTE	Student Record
Course Category	SubjectArea	Transcript
Country	Country	Transcript
Discipline Action Code	DisciplineActionCode	Student Record
Discipline Action Reason	DisciplineActionReason	Student Record
Economic Disadvantaged	EconomicDisadvantage	Student Record
ESL Program Type Code	ESL	Student Record
Ethnicity (USDE 1977 definitions)	Race	Student Record; Transcript
Foster Care Indicator Code	FosterCare	StudentRecord
FHSP	FHSPParticipantCode	Student Record
FHSP	FHSPDistingIndicatorCode	Student Record; Transcript
FHSP	ArtsEndorsementCode	Student Record; Transcript
FHSP	BusinessEndorsementCode	Student Record; Transcript
FHSP	MultiStudiesEndorsementCode	Student Record; Transcript
FHSP	PublicServicesEndorsementCode	Student Record; Transcript
FHSP	STEMEndorsementCode	Student Record; Transcript
Gender	Gender	Student Record; Transcript
Generation Code	Suffix	Student Record; Transcript
Gifted Talented Indicator	GiftedTalented	Student Record
Grade Level	GradeLevel	Student Record; Transcript
Graduation Program Type	GraduationDiplomaType	Transcript
Home Language	Language	Student Record
Homeless Indicator	Homeless	Student Record
LEP Indicator	LEP	Student Record
Military Connected	MilitaryConnected	Student Record
Quartile	Quartile	Transcript
Participation Indicator Code	SpecialEd	Student Record
Participation Indicator Code	AtRisk	Student Record
Participation Indicator Code	Migrant	Student Record
Participation Indicator Code	IEP	Student Record
Participation Indicator Code	PersonalGradPlan	Student Record
Participation Indicator Code	Dyslexia	Student Record
Performance Acknowledgment AP IB	PerfAckApIbCode	Student Record; Transcript
Performance Acknowledgment Bilingualism/Biliteracy	PerfAckBilingBilitCode	Student Record; Transcript
Performance Acknowledgment College Readiness Assessment	PerfAckCollegeAssessCode	Student Record; Transcript
Performance Acknowledgment Dual Credit	PerfAckDualCreditCode	Student Record; Transcript
Race/Ethnicity (USDE 1997 definitions)	Ethnicity	Student Record, Transcript
Semester Sequence Code	SemesterSeq	Student Record, Transcript
Special Explanation Code	Explanation	Transcript
STAAR Performance Level	PerformanceLevel	Student Record, Transcript

State	StateProvince	Student Record, Transcript
Texas Grant Indicator Code	TexasGrant	Transcript
Title I Part A Indicator	TitleI	Student Record
Unschooler Asylee/Refugee Code	AsyleeRefugee	Student Record
Withdrawal Reason Code	WithdrawReason	Student Record

Hierarchy of XML Elements

TRExStudentRecords

TRExStudentRecord (1 ... n)

StudentIdentificationType (1)

StudentUniqueID (1)

Name (1)

FirstName (1)

MiddleName (0 or 1)

LastName (1)

Suffix (0 or 1)

PriorID (0 or 1)

LocalID (0 or 1)

Address (0 or 1)

Address (0 or 1)

City (0 or 1)

StateProvince (0 or 1)

Country (0 or 1)

PostalCode (0 or 1)

Parent (0 ... n)

Name (1)

FirstName (1)

MiddleName (0 or 1)

LastName (1)

Suffix (0 or 1)

StudentDemographic (1)

Gender (1)

Race (0 or 1)

Ethnicity (0 or 1)

BirthDate (1)

Language (0 or 1)

Migrant (0 or 1)

FosterCare (0 or 1)

MilitaryConnected (0 or 1)

Dyslexia (0 or 1)

Homeless (0 or 1)

AsyleeRefugeeCode (0 or 1)

School (1)

SchoolID (1)

SchoolName (1)

DistrictID (1)

DistrictName (0 or 1)

Address (0 or 1)

Address (0 or 1)

City (0 or 1)

StateProvince (0 or 1)

Country (0 or 1)

PostalCode (0 or 1)

PhoneNumber (1)

Fax (0 or 1)

Enrollment (1)

GradeLevel (1)

EntryDate (0 or 1)

ExitDate (0 or 1)

WithdrawDate (0 or 1)

WithdrawReason (0 or 1)
 GradePlaced (0 or 1)
 GradePromoted (0 or 1)
 GradeRetained (0 or 1)
 SpecialPrograms (0 or 1)
 LEP (0 or 1)
 EconomicDisadvantaged (0 or 1)
 AtRisk (0 or 1)
 TitleI (0 or 1)
 SpecialEd (0 or 1)
 IEP (0 or 1)
 Bilingual (0 or 1)
 ESL (0 or 1)
 GiftedTalented (0 or 1)
 CTE (0 or 1)
 PersonalGradPlan (0 or 1)
 Assessment (0 ... n)
 TestName (0 or 1)
 or
 AdditionalTestName (0 or 1)
 TestLevel (0 or 1)
 TestDate (0 or 1)
 ExitRequirementMetDate (0 or 1)
 TestScore (0 or 1)
 TestCode (0 or 1)
 PerformanceLevel(0 or 1)
 AssessmentSubTest (0 ... n)
 SubTestName (0 or 1)
 SubTestScore (0 or 1)
 Attendance (0 or 1)
 DaysAttended (0 or 1)
 DaysAbsent (0 or 1)
 Immunization (0 ... n)
 ImmunizationCode (0 or 1)
 ImmunizationDate (0 or 1)
 ImmunizationDose (0 or 1)
 DisciplineAction (0 ... n)
 DisciplineActionDate (0 or 1)
 DisciplineActionNum (0 or 1)
 DisciplineActionCode (0 or 1)
 DisciplineActionReason (0 or 1)
 AcademicStatus (0 or 1)
 GraduationDate (0 or 1)
 GraduationDiplomaType (0 or 1)
 CertificateDate (0 or 1)
 TexasGrant (0 or 1)
 DistinguishedAchievements (0 or 1)
 AdvancedMeasure (0...4)
 FHSPParticipantCode (0 or 1)
 FHSPDistingIndicatorCode (0 or 1)
 ArtsEndorsementCode (0 or 1)
 BusinessEndorsementCode (0 or 1)
 MultiStudiesEndorsementCode (0 or 1)
 PublicServicesEndorsementCode (0 or 1)
 STEMEndorsementCode (0 or 1)
 DualCreditType (0... n)

- BilingBilitType (0... n)
- CollegeAssesType (0... n)
- ApIbType (0... n)
- CertLicType (0... n)
- CurrentCoursework (0 or 1)
 - Course (1 ... n)
 - CourseTitle (0 or 1)
 - CourseID (0 or 1)
 - Abbreviation (0 or 1)
 - Semester (0 or 1)
 - ClassPeriod (0 or 1)
 - SubjectArea (0 or 1)
 - CourseGrade (0 ... n)
 - WithdrawGrade (0 or 1)
 - GradeAverage (0 or 1)
 - CourseCredit (0 or 1)
 - PassFailCredit (0 or 1)
 - Explanation (0 ... n)
 - CourseTeacher (0 or 1)
 - CreditCampus (0 or 1)
 - SemesterSeq (0 or 1)
 - FinalGradeAverage (0 or 1)
 - SchoolYear (1)
 - GradeLevel (1)
- AcademicSession (0 ... n)
 - SchoolYear (1 ... n)
 - GradeLevel (1)
 - Course (1 ... n)
 - CourseTitle (0 or 1)
 - CourseID (0 or 1)
 - Abbreviation (0 or 1)
 - Semester (0 or 1)
 - ClassPeriod (0 or 1)
 - SubjectArea (0 or 1)
 - CourseGrade (0 ... n)
 - WithdrawGrade (0 or 1)
 - GradeAverage (0 or 1)
 - CourseCredit (0 or 1)
 - PassFailCredit (0 or 1)
 - Explanation (0 ... n)
 - CourseTeacher (0 or 1)
 - CreditCampus (0 or 1)
 - SemesterSeq (0 or 1)
 - FinalGradeAverage (0 or 1)
 - AcademicSummary (0 or 1)
 - GPA (0 or 1)
 - ClassTotalNumber (0 or 1)
 - ClassRank (0 or 1)
 - ClassRankingDate (0 or 1)
 - Quartile (0 or 1)
 - CollegeCampusCode (0 or 1)
- AcademicSummary (0 or 1)
 - GPA (0 or 1)
 - ClassTotalNumber (0 or 1)
 - ClassRank (0 or 1)

ClassRankingDate (0 or 1)
Quartile (0 or 1)
CollegeCampusCode (0 or 1)