Province of British Columbia
Ministry of Education

Transcripts and Assessments

TRAX Data Transfer Specifications

Updated October 2021

Table of Contents

1.0   SUMMARY OF CHANGES

Text in **BOLD** type indicates a change from the previous official specifications.

The main changes to this October 2021 version are as follows:

- **Introduction of Grade 12 Literacy Assessment in 2021/22 school year and addition of all numeracy and literacy assessment codes to XAM file overview.**

- **Removal of reference to provincially examinable courses and exams throughout document. The XAM file for electronic data transfer will now only contain information for graduation assessments.**

- **Removal of reference to 2004 Graduation Program as a current program. Current graduation programs are only the 2018 Graduation Program (Grad Reqt Year code "2018") and the Adult Graduation Program (Grad Reqt Year code "1950" in the DEM file).**

2.0   OVERVIEW

The TRAX system has 3 file formats for communication with school administrative computer systems:

DEM   Demographic data for students

XAM   Any transaction dealing with a graduation assessment record, such as the school's registrations of students for the provincial Grade 10 numeracy and literacy assessments. **The Grade 12 Literacy Assessment registrations will also be included in XAM file starting in the 2021/22 school year.**

The same file format is used by the Ministry to make assessment results available to the schools once released for an assessment session.

CRS   Any transaction dealing with a course taken by a student. This includes initial registration, interim and final percentages, and interim and final letter grades.

3.0   SCHEDULED DATA TRANSFERS

The "Upload TRAX Data Files" function on the School Secure Web is open for schools to transfer data electronically to the Ministry from early October through mid July.

NOTE: Beyond the core times listed below, schools are encouraged to upload TRAX files monthly where possible. This helps keep transcript records up to date for students who complete courses outside a standard semester or full year timetable. Uploading more frequently also supports the students' applications to post-secondary institutions that can receive transcript data electronically throughout the year, once authorized by students on StudentTranscripts Service.

Name of Transfer	Approx. Date	Direction	Files
First Data Submission	Oct/Nov	School to Ministry	DEM, XAM, CRS
November Assessment Records	Jan	Ministry to School	XAM
January Assessment Records	Mar	Ministry to School	XAM
Spring/Interim Submission of Grades	Apr/May	School to Ministry	DEM, XAM, CRS
April Assessment Records	Jun	Ministry to School	XAM
June/Final Submission of Grades	June/July	School to Ministry	DEM, XAM, CRS
June Assessment Records	July	Ministry to School	XAM

4.0   DATA SUBMISSIONS TO THE MINISTRY

4.1   Data Format

The file names used should be as follows:

Student demographic data	\<school code>.DEM
Graduation assessment records	\<school code>.XAM
Non-provincially examinable courses	\<school code>.CRS

\<School code> refers to the school's eight-digit ministry facility code
(e.g., 00101001.DEM).

4.2   Data Transfers

Schools send their TRAX data files using the **"Upload TRAX Data Files (DEM, XAM and CRS)"** function on the School Secure Web. For processing of student data for transcripts, all three files (DEM, XAM and CRS) must be uploaded.

5.0   DEM File – Student Demographic Data

5.1   Demographic Overview

The First Data Submission is used to add new students and update students already on the TRAX database. Subsequent Demographic files are used to update existing data. If the Ministry receives a "terminated" Demographic record, and the student is not re-activated by another school (or the same school), reports available to the schools on the School Secure Web will not include that student.

EVERY transfer should contain 1 record for each:

- Grade 10, 11 & 12 student on the 2018 Graduation Program (2018 GRAD_REQT_YEAR)

- Grade AN or Grade AD student registered in the Adult Graduation Program (1950 GRAD_REQT_YEAR), or

- student in some other grade who is registered in a graduation assessment in the current school year within any Graduation Program, or

- student who is on a School Completion Certificate Program (SCCP)— an educational program that does not lead to graduation but may qualify for a School Completion Certificate, or

- **student who previously graduated on a BC graduation program and is returning to upgrade (GRAD_REQT_YEAR and Grade applicable to program at graduation).**

No other demographic records should be sent. The student's name should correspond to the LEGAL names as reported to the Ministry for the student's Personal Education Number (PEN). All student records must include the student's PEN.

It is expected that the data sent by the schools is a COMPLETE SNAPSHOT of the student's demographic data. The only way to indicate that a student is terminated/withdrawn is to send the demographic record with a "T" in the Status field (i.e., not sending the demographic record is not an acceptable way to tell the ministry that a student has terminated/withdrawn). Once the demographic record with the termination status has been sent, it does not need to be sent again on the next transfer.

5.2 DEM Record Layout

Item	Type	Size	Offset
TX_ID	CHARACTER	3	0
VENDOR_ID	CHARACTER	1	3
VERI_FLAG	CHARACTER	1	4
FILLER1	CHARACTER	5	5
MINCODE	CHARACTER	8	10
STUD_LOCAL_ID	CHARACTER	12	18
STUD_NO (PEN)	CHARACTER	10	30
FILLER2	CHARACTER	9	40
STUD_SURNAME	CHARACTER	25	49
STUD_GIVEN	CHARACTER	25	74
STUD_MIDDLE	CHARACTER	25	99
ADDRESS1	CHARACTER	40	124
ADDRESS2	CHARACTER	40	164
CITY	CHARACTER	30	204
PROV_CODE	CHARACTER	2	234
CNTRY_CODE	CHARACTER	3	236
POSTAL	CHARACTER	7	239
BIRTHDATE	CHARACTER	8	246
STUD_SEX	CHARACTER	1	254
STUD_CITIZ	CHARACTER	1	255
STUD_GRADE	CHARACTER	2	256
PRGM_CODE1	CHARACTER	4	258
PRGM_CODE2	CHARACTER	4	262
PRGM_CODE3	CHARACTER	4	266
PRGM_CODE4	CHARACTER	4	270
PRGM_CODE5	CHARACTER	4	274
FILLER3	CHARACTER	5	278
PROGRAM_CADRE_FLAG	CHARACTER	1	283
STUD_STATUS	CHARACTER	1	284
GRAD_REQT_YEAR	CHARACTER	4	285
SCCP_COMPLETION_DATE	CHARACTER	8	289

Record Size: 297 Bytes

5.3　DEM Record Details

Field	Sample	Comments
TX_ID	E02	This is a constant.
FILLER1		Blanks
VENDOR_ID	3	Vendor Code to be supplied by the Ministry.
VERI_FLAG	Blank	Blank. This flag will be set to Y if file is run through TRAX verification software.
MINCODE	06262013	School Facility Code. Always 8 digits.
STUD_LOCAL_ID	000000012345	Student ID in the School Admin. computer system. Ministry will not alter this field - if you want it right-justified, then do it before sending it to us.
STUD_NO	900001234	Ministry Student ID (PEN). The 10th position is currently left blank. The 1st 9 digits must pass the mod-10 check digit routine.
FILLER2		Blanks
STUD_SURNAME	JOHNSON	1st character must be alpha. Must be legal name as reported for the student's PEN.
STUD_GIVEN	PATRICK	See previous field.
STUD_MIDDLE	JOHN L	No edits; otherwise, see previous field.
ADDRESS1	APARTMENT 201	At least one of ADDRESS1 or ADDRESS2 must be non-blank.
ADDRESS2	1234 BROAD STREET	

Field	Sample	Comments
CITY	VICTORIA	Must be non-blank.
PROV_CODE	BC	Standard 2-alpha character provincial/state codes. These are listed in the phone book.
CNTRY_CODE	CN	Two-character country code (table available on request). Blank defaults to CN for Canada.
POSTAL	V8N1L6 or 12345 or 1234567	Left-justified, no imbedded blanks for Canadian Postal code.
BIRTHDATE	20050316	YYYYMMDD format
STUD_SEX	M	M or F
STUD_CITIZ	C	Must be C or O. C stands for Canadian citizen or Permanent Resident. O = Other
STUD_GRADE	12	8,9,10,11,12, AD, AN, HS (as below): AD - Adult Graduation Program and expect to graduate in the current school year. AN - Adult Graduation Program and do not expect to graduate in the current school year. HS - Home Schooled
PRGM_CODE1	XYZZ	4 alpha characters or blank.
PRGM_CODE2	XYZZ	4 alpha characters or blank. Shouldn't have a value if PRGM_CODE1 doesn't have a value.
PRGM_CODE3	XYZZ	See previous field.
PRGM_CODE4	XYZZ	See previous field.

Field	Sample	Comments
PRGM_CODE5	XYZZ	See previous field.
FILLER3		Leave blank
PROGRAM_CADRE_FLAG	Y	Y if student registered in Program Cadre. Otherwise, blank.
STUD_STATUS	A	A=Active T=Terminated (Withdrawn) D=Deceased
GRAD_REQT_YEAR	2018	2018 – Student is using the graduation requirements that began for students who entered Grade 10 in September 2016 or later and will graduate in 2019 or later. 1950 – Student is using the graduation requirements of the Adult Graduation Program. STUD_GRADE must be "AD" or "AN" if GRAD_REQT_YEAR=1950 (Adult). 2004 – Student is returning to upgrade, having previously graduated on the 2004 Grad Program that began in September 2004 and closed June 2020. 1996 – Student previously graduated on the 1995 Grad Program and is returning to upgrade. SCCP – Student is on a School Completion Certificate Program that does not lead to graduation.
SCCP_COMPLETION_DATE	20210630	Format YYYYMMDD or blank. Used to request a School Completion Certificate (SCC) for a student who has met their educational program goals that do not lead to graduation. The GRAD_REQT_YEAR must be "SCCP" in order for a student to be issued the SCC.

6.0   XAM file – Graduation Assessment Records

6.1   Overview

If the student has been selected for the DEM file, then select the **Numeracy and Literacy Assessment registration** records scheduled for the student in the current school year.

NOTE: This file no longer includes provincially examinable courses, which are not applicable to any current graduation program. Reporting errors in school percentages for past courses with provincial exams must be completed using a TRAX Change Form (available from the "Graduation Materials and Forms" link on the School Secure Web).

Adult Graduation Program (GRAD_REQT_YEAR = 1950) – The graduation assessments are NOT required for students on this program. Only include assessment registrations for Adult Grad Program students who opt to write them in the current school year. **If no Adult students opt to write assessments, a XAM file must still be submitted (content blank) to enable processing of the other TRAX data files.**

2018 Graduation Program (GRAD_REQT_YEAR = 2018) – The graduation assessments are required for students on this program and must be reported using applicable assessment codes (in parenthesis):

- **Grade 10 Literacy Assessment (LTE10)**
- **Évaluation de littératie de la 10e année – Français langue première (LTP10)**
- **Grade 10 Numeracy Assessment (NME10)**
- **Évaluation de numératie 10 (NMF10)**

Starting 2021/22 school year, schools must also be able to report registrations for the Grade 12 literacy assessments using the applicable assessment code(s):

- **Grade 12 Literacy Assessment (LTE12)**
- **Évaluation de littératie de la 12e année – Français langue première (LTP12)**
- **Évaluation de littératie de la 12e année – Français langue seconde-immersion (LTF12)**

For all assessments, the CRSE_CODE includes the grade level so the CRSE_LEVEL field should be blank. The NUM_CREDITS field should also be blank.

The session date (CRSE_YEAR plus CRSE_MONTH) on each XAM record must reflect a date when the assessment is offered in the current school year's Graduation Assessment Schedule. This will allow the Ministry to pick out the student's registration for a particular assessment session in the data transfer of each record. The vendor must provide a mechanism for the school to convert their internal "Course End" date to a "Session Date" as defined by the Ministry. Ministry session dates consist of a 4-digit year plus the 2-digit month. The Ministry currently offers graduation assessments (but not for all the assessments) in November, January, April, and June (CRSE_MONTH = 11, 01, 04, or 06).

6.2   XAM File – Assessment Data by Session

Schools can register students for all assessment sessions at the start of the school year if they wish in the first TRAX data submission.

6.3   Ministry-provided XAM Data File

The Ministry makes assessment results available to schools after each assessment session (if the school had students writing assessments in that session). **The XAM file contains the assessment proficiency score (at Final Percent offset).** It is the responsibility of the school to update their system with any or all of the data items provided in the file.

6.4   XAM Record Layout

Item	Type	Size	Offset
TX_ID	CHARACTER	3	0
VENDOR_ID	CHARACTER	1	3
VERI_FLAG	CHARACTER	1	4
FILLER1	CHARACTER	5	5
MINCODE	CHARACTER	8	10
STUD_LOCAL_ID	CHARACTER	12	18
STUD_NO (PEN)	CHARACTER	10	30
CRSE_CODE	CHARACTER	5	40
CRSE_LEVEL	CHARACTER	3	45
CRSE_YEAR	CHARACTER	4	48
CRSE_MONTH	CHARACTER	2	52
INTERIM_LETTER_GRADE	CHARACTER	2	54
INTERIM_SCHOOL_PERCENT	CHARACTER	3	56
FINAL_SCHOOL_PERCENT	CHARACTER	3	59
EXAM_PERCENT	CHARACTER	3	62
FINAL_PERCENT	CHARACTER	3	65
FINAL_LETTER_GRADE	CHARACTER	2	68
E-EXAM FLAG (previously EXAM_TYPE_FLAG)	CHARACTER	1	70
PROV_SPEC_CASE	CHARACTER	1	71
LOCAL_CRSE_ID	CHARACTER	20	72
CRSE_STATUS	CHARACTER	1	92
STUD_SURNAME	CHARACTER	25	93
NUM_CREDITS	CHARACTER	2	118
CRSE_TYPE	CHARACTER	1	120
TO_WRITE_FLAG (previously blank filler)	CHARACTER	1	121

Record Size: 122 Bytes

6.5   XAM record details (Assessments)

Field	Sample	Comments
TX_ID	E06	Use E06 for transactions sent to the Ministry. The Ministry will use E07 for transactions sent to the school.
VENDOR_ID	W	Vendor Code
VERI_FLAG	*Blank*	This flag will be set to Y if file is later run through TRAX verification software.
FILLER1		Blanks
MINCODE	06262013	School Facility Code Always 8 digits.
STUD_LOCAL_ID	000000012345	Student ID in the School Admin. system. Ministry will not alter this field.
STUD_NO	900001234	Ministry Student ID (PEN). The 10th position is left blank. The first 9 digits must pass the mod-10 check digit routine.
CRSE_CODE	LTE10	Must be left-justified.
CRSE_LEVEL	***Blank***	**Leave blank**
CRSE_YEAR	2021	The Year portion of the assessment session.
CRSE_MONTH	01	Currently, the only months allowed are 11, 01, 04, 06. This is subject to change in future years.
INTERIM_LETTER_GRADE	***Blank***	**Leave blank**
INTERIM_SCHOOL_PERCENT	***Blank***	**Leave blank**
FINAL_SCHOOL_PERCENT	***Blank***	**Leave blank**
FINAL_PERCENT	**001 — 004**	This data originates with the Ministry. If the assessment is completed, the school can store this proficiency score in their system.

Field	Sample	Comments
FINAL_LETTER_GRADE	*Blank*	**Leave blank**
E_EXAM_FLAG	Y	Y = Student will complete the assessment electronically
PROV_SPEC_CASE	E	Blank = no special case.
		E = Exemption for assessment (Ministry applied).
		R=Rewrite (Indicates that student wishes to rewrite a Provincial exam without re-taking the course at school. The Ministry will find the appropriate school percent from its data base).
		D=Deferral (Indicates the student has been allowed to write the exam at a later session).
LOCAL_CRSE_ID		These 20 bytes can be used in whatever way is required by the school to identify the course on their system.
		The ministry will return this data unchanged so that the assessment proficiency score or special case can be put onto the student's record locally.
CRSE_STATUS	A	A=Active, W=Withdrawn
		If the assessment is for a FUTURE session, then a "W" indicates that the student has withdrawn. Note: Once an assessment session has passed, the Ministry will not process any data sent by schools for assessments in that session.
STUD_SURNAME	JONES	Used to ensure that the STUD_NO on the record is for the correct student.
NUM_CREDITS	*Blank*	**Leave blank**
CRSE_TYPE	*Blank*	**Leave blank**
TO_WRITE_FLAG	*Blank*	**N/A**

7.0 CRS File - Non-provincially Examinable Courses

7.1 Courses Overview

Since provincial exams associated with courses are no longer offered, the CRS file will include all courses currently available for schools to report.

To simplify the extraction process, all extracts can use identical criteria, as follows:

- ONLY select Grade 10, 11 and 12 courses for students currently registered in Grades 10, 11, 12, or Grades AD or AN in the Adult Graduation Program.*

- For the courses selected, send final marks for all completed Grade 10, 11 and Grade 12 courses.

- For these same students, also send courses that the student is CURRENTLY taking or WILL take this school year. For the April data transfer, if available, send interim marks for Grade 10, 11 and 12 courses being completed in June of the current year.

*NOTE: Grade 10 courses do not need to be sent for students completing the Adult Graduation Program (GRAD_REQT_YEAR = 1950). If sent, they will be ignored for graduation calculation and transcript purposes.

The session dates on the CRS records can be ANY month of the year.

The default setting for schools is for the school's data upload to REPLACE THE ENTIRE SET of non-provincial data previously held for a student in the Ministry's TRAX database. This places the responsibility on the current school to ensure that the history of Grade 10, 11 and 12 non-provincially examinable course data is 100% complete and accurate in their school admin. system. It also eliminates the need for TRAX Change Forms to report changes to regular courses not linked to a past provincial exam or a former student. In fact, any changes submitted on a TRAX Change Form for manual data entry would be removed when the next CRS file (including that student) is uploaded if the changes are not included in the school's data transfer.

Exceptions to this procedure can be made by request to the Ministry; **however, exceptions will only be made in select cases where regularly securing complete student records may present an unreasonable challenge to the school** (e.g., continuing education, and First Nations non-independent schools). Schools unsure of their setting in TRAX (either replacing or adding records with each upload) or to discuss changing it, may email TRAX.Support@gov.bc.ca with their school's 8-digit school facility code, staff contact name and phone number.

7.2   CRS Record Layout

Item	Type	Size	Offset
TX_ID	CHARACTER	3	0
VENDOR_ID	CHARACTER	1	3
VERI_FLAG	CHARACTER	1	4
FILLER1	CHARACTER	5	5
MINCODE	CHARACTER	8	10
STUD_LOCAL_ID	CHARACTER	12	18
STUD_NO	CHARACTER	10	30
CRSE_CODE	CHARACTER	5	40
CRSE_LEVEL	CHARACTER	3	45
CRSE_YEAR	CHARACTER	4	48
CRSE_MONTH	CHARACTER	2	52
INTERIM_PERCENT	CHARACTER	3	54
INTERIM_LG	CHARACTER	2	57
FINAL_PERCENT	CHARACTER	3	59
FINAL_LG	CHARACTER	2	62
CRSE_STATUS	CHARACTER	1	64
STUD_SURNAME	CHARACTER	25	65
NUM_CREDITS	CHARACTER	2	90
RELATED_CRSE	CHARACTER	5	92
RELATED_LEVEL	CHARACTER	3	97
CRSE_DESC	CHARACTER	40	100
CRSE_TYPE	CHARACTER	1	140
CRSE_GRAD_REQT	CHARACTER	1	141

Record Size: 142 Bytes

7.3   CRS Record Details

Field	Sample	Comments
TX_ID	E08	Constant value.
VENDOR_ID	W	Vendor Code
VERI_FLAG	Blank	Blank. This flag will be set to Y if file is later run through TRAX verification software.
FILLER1		Blanks
MINCODE	06262013	School Facility Code.
STUD_LOCAL_ID	000000012345	Always 8 digits. Student ID in the School Admin. system. Ministry will not alter this field.
STUD_NO	900001234	Ministry Student ID (PEN). The 10th position is left blank. The first 9 digits must pass the mod-10 check digit routine.
CRSE_CODE	CALC	Must be left-justified, and one of the courses listed as approved (Provincially authorized or locally developed).
CRSE_LEVEL	12	Left-justified.
CRSE_YEAR	2021	The year portion of the course completed session.
CRSE_MONTH	06	The month portion of the course completed session. Any month of the year is allowed.
INTERIM_PERCENT	e.g., 0, 80, 100, blank	The only transfer that uses this field is INTERIM GRADES in April.
INTERIM_LG	B	The only transfer that uses this field is INTERIM GRADES. The interim grades possible are A, B, C+, C, C-, TS, I, W and F.

Field	Sample	Comments
FINAL_PERCENT	e.g., 0, 80, 100, blank	If a course has FINISHED, the final percent goes in this field. The final percent can range from 0 to 100. A blank or zero will be treated as a missing final percent.
FINAL_LG	A	If a course has FINISHED, the final letter grade goes in this field. For courses finished before 199409, the final grades possible are A, B, C+, C, P, F, SG, TS, W, WF, and I. For courses finished on or after 199409 the final grades possible are A, B, C+, C, C-, F, SG, TS, W, I and RM. RM is only permitted to be used for Graduation Transitions (GT).
CRSE_STATUS	A	A=Active, W=Withdrawn A "W" indicates that the student has withdrawn. However, if the course is simply not on the CRS file the Ministry will also assume that the student has withdrawn from the course. Note that this applies to all non-provincial courses, even those that have been completed. It is therefore important that the school sends the Ministry complete history of non-provincial courses on each transfer.
STUD_SURNAME	JONES	Used to ensure that the STUD_NO on the record is for the correct student.
NUM_CREDITS	4	Edits for NUM_CREDITS are only required for course sessions >= 199509. Withdrawals should be reported with 0 credits. Note: The Ministry does not maintain the number of credits that make up a completed locally-developed course. Thus, the school can submit 1, 2, 3 or 4 credits for these courses.

Field	Sample	Comments
RELATED_CRSE	CH	When combined with RELATED_LEVEL, must make up a valid course code/ level, or be blank.
		Must have a value if record is for an independent directed study course, or else must be blank.
RELATED_LEVEL	11	When combined with RELATED_CRSE, must make up a valid course code/ level, or be blank.
CRSE_DESC	Modern Photography Technique	The description of an Arts Education or Applied Design, Skills and Technologies course that should appear on the transcript. The Ministry will default this field to the original course name if it is blank.
CRSE_TYPE	E	Must be "E", "C", or blank.
		"E" indicates equivalency i.e., the student has taken equivalent course material outside the school setting.
		"C" indicates challenge for course credit.
CRSE_GRAD_REQT	F	To indicate that a course meets the Arts Education and/or Applied Design, Skills and Technologies graduation requirement, the acceptable values are:
		"F" - meets Arts Education Req't only (must be at least 2 credits)
		"A" - meets Applied Design, Skills and Technologies Req't only (must be at least 2 credits)
		"B" - meets the Arts Education AND the Applied Design, Skills and Technologies Req't (must be at least 4 credits)
		Blank if does not meet any of the above

8.0   MASTER TABLES

The TRAX system uses a number of tables to validate data elements and determine graduation status. On request, the ministry will provide a data extract which includes the following files:

File Name	Contents
COUNTRY.DAT	Two-character country codes
COURSES.DAT	All course codes **(no graduation assessment codes)***
ERRORS.DAT	Errors which are checked during data loading
GRADCRSE.DAT	Grad requirements fulfilled by each course
GRADES.DAT	Letter Grades
GRADREQ.DAT	Grad requirements by graduation program
PROGRAMS.DAT	Career Preparation program codes
RESTRICT.DAT	Restricted course combinations
SESSIONS.DAT	Valid exam sessions **(past provincial exams – reference only)***
TTCODES.TXT	File layouts for each of the above files

Of particular interest to vendors are the PROGRAMS, COUNTRY and COURSES tables.

*Note: Graduation Assessment codes are provided in Section 6.1 of in this document. Assessment session dates for the current school year are included in the year's Graduation Assessment Schedule.

9.0   VENDOR CERTIFICATION

Currently Certified Vendors:

Since there are only changes to selection criteria, field usage and expanded values for some fields, and no changes to file layouts, or changes to existing field lengths, vendors who have been certified previously do not need to submit certification data.

10.0   MINISTRY CONTACTS

If you have any questions about these specifications or about certification, please contact:

Jerianne Hamilton
TRAX System Coordinator
email: trax.support@gov.bc.ca

Student Certification Branch
Ministry of Education
PO Box 9886 STN PROV GOVT
620 Superior Street, 3rd Floor
Victoria, BC   V8W 9T6

Questions about 1701 data transfers should be referred to:

Manager, Data Management
email: data.management@gov.bc.ca

Questions about student demographic (DEM) errors should be referred to:

Ministry PEN Coordinator
email: pens.coordinator@gov.bc.ca