PowerSchool Import File Utility

MISD

Management Technology Helpdesk

May 2015

Contents

PowerSchool Import File Utility

The PowerSchool quick import accepts delimited text files, defaulting to tab delimited format. The PowerSchool Import File Utility Program converts comma separated value (CSV) files and text (TXT) files, with fixed format records, into a tab delimited file. The tab delimited file is then used by the PowerSchool quick import, loading data into the system.

The import utility program has the capability to connect to the PowerSchool database, obtaining the student number from the Unique Identification Code (UIC), original student number, or the student's last name, first name, and birthday.

Several date format translation functions are available, converting dates into the PowerSchool format (MM/DD/YYYY). The import utility is used to remove any unnecessary data fields before importing data into PowerSchool.

The import utility program has the capability to save the input parameters in a parameter file for subsequent reuse. A pre-defined set of parameter files has been prepared by the MISD for importing test scores for the ACT, ACT-Explore, ACT-Plan, MEAP, MME, MME-ACT, MME- Work key, and STAR.

File Input Parameters

1. Input file name for the conversion. The file can be delimited format (comma, semi- colon, tab, space, or other) or a text file with fixed format records.
2. Output file name is created for input to PowerSchool.
3. Optional input parameter file, containing the file conversion parameters from a prior setup.
4. Optional database connection file used to open the PowerSchool database to find a student number.

A new option was added in version 1.02 to accept input files in UTF-16 encoding. The check box option is found at the bottom of the first import form.

File Record Type Parameters

Record type parameters are entered depending on the input file type.

Delimited Text File

Files can be delimited by a tab character, semi colon, comma, space character, or other single character specified.

The quoted text identifier is used to specify fields are enclosed by a special character. This is normally a quote (") character. The text identifier option allows the field to have the record delimiter in the field, when the field is enclosed by the text identifier. For example: "last name, first name" may be entered when the record delimiter is a comma. This option must be verified by viewing the input file. If the file does not use this feature, then set the input parameter to blank.

Delimited files can have the field names in the first record for each column, identifying the field.   This is useful because the program can refer to the field name instead of the column number. If changes are made to the input file, then the correct fields are still referenced properly using the field name. Set this option to zero (0) when the input file does not have field names, defining the column attributes.

The start importing records option is used to ignore any header file records in the file. This value must be one (1) or greater.

Fixed Format Text File

The start importing records option is used to ignore any header file records in the file. This value must be one (1) or greater.
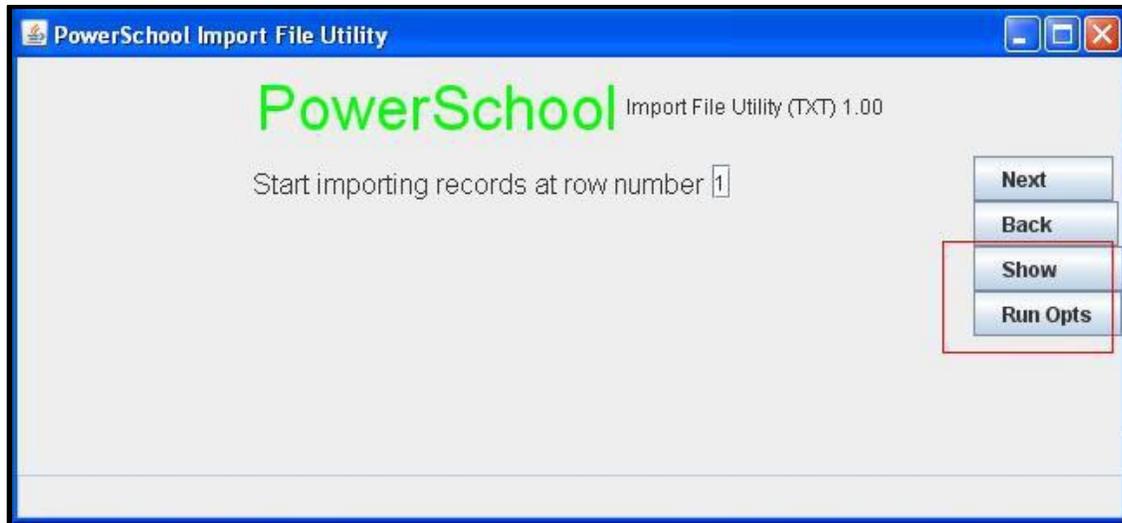
Show Input File

The show input file option displays the first twenty (20) records in the file. This is used to verify the options selected are correct.
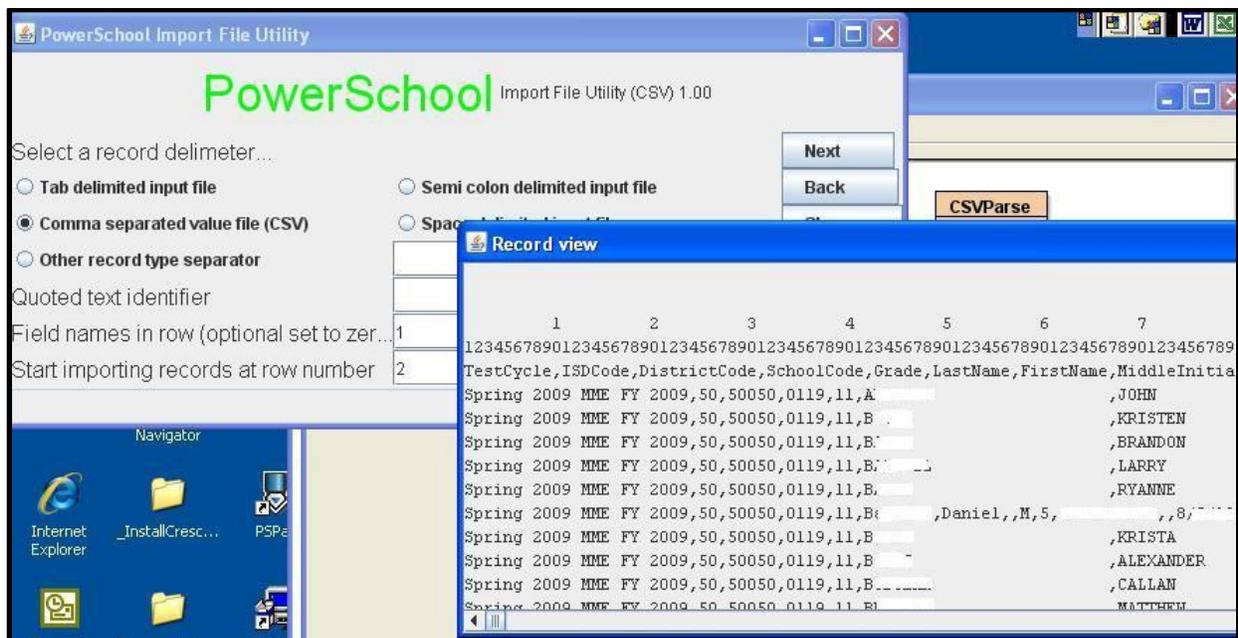
Delimited Text File Input Parameters

The input parameter form for delimited text files consist of:

1. The column name or column number from the input delimited file.
2. A sample field value read from the first twenty (20) records read from the file.
3. A data entry text field, specifying the PowerSchool field name for mapping to data attribute in PowerSchool.
4. A combo box with data conversion options for the data field (See section on data conversions).

The program only extracts the fields specified with a PowerSchool field name. Press the Save button to save your input parameter to a text file.

Sample delimited text file with column names

Sample delimited text file without column names

Fixed Format Text File Parameters

The input parameter form for fixed form text files consist of:

1. From starting character position (1 and up) in the record for the data attributes.
2. To ending character position in the record for the data attributes.
3. A sample field value read from the first twenty (20) records read from the file.
4. A data entry text field, specifying the PowerSchool field name for mapping to data attribute in PowerSchool.
5. A combo box with data conversion options for the data field (See section on data conversions).

When the From or To character position is entered the program will display a sample value from the input record. The Show button may be used to display the records and the field character positions.

The program only extracts the fields specified with a PowerSchool field name. Press the Save button to save your input parameter to a text file.

Field Level Conversion Routines

Date routines are provided to convert dates in various formats to MM/DD/CCYY for PowerSchool. All date routines insert the century when the 19 or 20 century value is not in the date format. If the year entered is 51 or greater, then the century is translated to 19; otherwise the century used is 20.

The UIC conversion option indicates the data in the record is the UIC code. The code is used to find the related student number in PowerSchool. The conversion routine changes the heading of the related UIC conversion field name to "Student_Number" for importing into PowerSchool.

The "LastFirstDOB" option is used to indicate the Student Number is found using the student last name, first name, and birthday. The student number is put at the end if the import record with the field name "Student_Number".

The "OrigStuID" option finds the related student number in PowerSchool using the ORIG_STUDENT_ID field. The conversion routine changes the heading of the related data conversion field name, to "Student_Number" for importing into PowerSchool.

The UIC conversion, last name conversion, and Original student ID conversion account for duplicates by using the active student number if there are no duplicates. If an inactive student has no duplicates, without an active student match, then the inactive student is assigned.

MMDDYY to MM/DD/CCYY

The input field must be 5 or 6 digits. If the field size is 5 digits, then a leading zero is entered for a month less than 10. The day (DD) must have a leading zero when the day is value is less than

10. If the field cannot be converted then the original value is entered in the output file.

MMDDCCYY to MM/DD/CCYY

The input field must be 7 or 8 digits. If the field size is 7 digits, then a leading zero is entered for a month less than 10. The day (DD) must have a leading zero when the day is value is less than

10. If the field cannot be converted then the original value is entered in the output file.

YYMMDD to MM/DD/CCYY

The input field must be 3, 4, 5, or 6 digits. If the field size is 4 or 5 digits, then leading zeros are entered for the year. If the field size is 3 digits then leading zeros are entered for the year and the month. The day (DD) must have a leading zero when the day is value is less than 10. If the field cannot be converted then the original value is entered in the output file.

CCYYMMDD to MM/DD/CCYY

The input field must be 8 digits. The month and day must have leading zeros when the day or month is value is less than 10. If the field cannot be converted then the original value is entered in the output file.

CCYY-MM-DD to MM/DD/CCYY

The field must be at least 8 characters in size. The conversion parses the year, month, and day fields delimited by the non-digit format character ("-", "/", etc). If the month or day is one character then program adds a leading zero on output.

MMYY to MM/DD/CCYY

The input field must be 3 or 4 digits. If the field size is 3 digits, then a leading zero is entered for a month less than 10. The day is always set to the value "01" in the conversion. If the field cannot be converted then the original value is entered in the output file.

UIC to Student Number

The program finds the students with the UIC code in PowerSchool. The output student number is set to "not found" when a UIC number is not found. If more than one student shares the same UIC code, the program sets the student number to "dup UIC". If an inactive student has no duplicate UIC codes, without an active student UIC code, then the inactive student number is assigned.

Last, First, Date of birth to Student Number

The program finds the students with the same first name, last name, and birthday. The first and last names are compared removing all special characters (digits, quote, apostrophe, etc.) from the name. If no students are found then the student number is set to "not found". If more than one student shares the same name and birthday the student number is set to "dup students". If an inactive student has no duplicate names, without an active student matching name, then the inactive student number is assigned.

The program looks for the following PowerSchool data field names used to identify the first name, last name, and birthday. These fields do not have to be imported in the PowerSchool quick import, but are necessary to find the related student number.

Field	PowerSchool data
Last name	Last_Name
Or Last	Last_Name_skip
First name	First_Name
Or First	First_Name_skip
Birthday	DOB
Or Birthday	DOB_skip

Orig_Student_ID to Student Number

The program finds the students with the original student number in PowerSchool from the SASI conversion. The output student number is set to "not found" when an original student number is not found. If more than one student shares the same UIC code, the program sets the student number to "dup Orig_Student_ID". If an inactive student has no duplicate original student id codes, without an active student original student id, then the inactive student number is assigned.

Blank=NA

Fields with no input, qvblank value, are updated with the code NA for not applicable.

ELPAPL

ELPA test score performance levels are translated as 1=Adv Prof, 2=Prof, 3=High Int, 4=Low Int, and 5=Basic.

StuToUIC

Convert the PowerSchool student number in the record to the student UIC number. Useful for converting files to systems outside of PowerSchool. In the record with the student number, select the output field name as UIC and select the "StuToUIC" translation option. The PowerSchool ODBC connection is used to find the student number, returning the student UIC number.

AddStu

Select the AddStu function on UIC code fields only. The UIC code field must be included in the output record. This function adds a column at the end of the record named "Student_Number", translating the UIC code to the Student Number. The UIC number is in the output file when the student number is not found.

AddUIC

Select the AddUIC function on student number fields only. The student number must be included in the output record. This function adds a column at the end of the record named "MI_SRSD_StudentUIC", translating the Student Number to the UIC code. The student number is in the output file when the UIC code is not found.

AddStuID

Select the AddStuID function on UIC code fields only. The UIC code field must be included in the output record. This function adds a column at the beginning of the record named "foreignKey", translating the UIC code to the internal PowerSchool student id. The UIC number is in the output file when the student id is not found. This translation is used for importing data into PowerSchool virtual tables, using the student id instead of the student number.

PowerSchool virtual table imports require the first column to be the linking key with the Student table.

NumericOnly

Set non-numeric values to spaces for importing into PowerSchool numeric and percentage data   fields. Example: the value NA is set to spaces. The value -2.0 is valid for importing into PowerSchool.

WIDAaltA

Convert WIDA test alternate access values (A1,A2,A3,P1,P2,P3,NA), to numeric values (1,2,3,4,5,6,0) for importing into numeric PowerSchool test score numeric or percentage.

If the value is alphanumeric and not in (A1,A2,A3,P1,P2,P3,NA), then the original value is returned. The original value should get an import error in PowerSchool, identifying a new alternate access value has been defined and needing translation.

SATlevel

Convert SAT test score attribute "educatoin level" to a matching PowerSchool grade level. Conversion as

follows:

SAT education level code	Description	PowerSchool Grade level
1	Not yet in 8th grade	07
2	8th grade	08
3	9th grade	09
4	10th grade	10
5	11th grade	11
6	12th grade	12
7	No longer in High School	Spaces

Run Time Parameters and Constants

Run time parameters and constants may be entered and created in the output file. One example is used is to enter the date the students took the MME examination. The program checks run time parameters are entered before running the conversion.
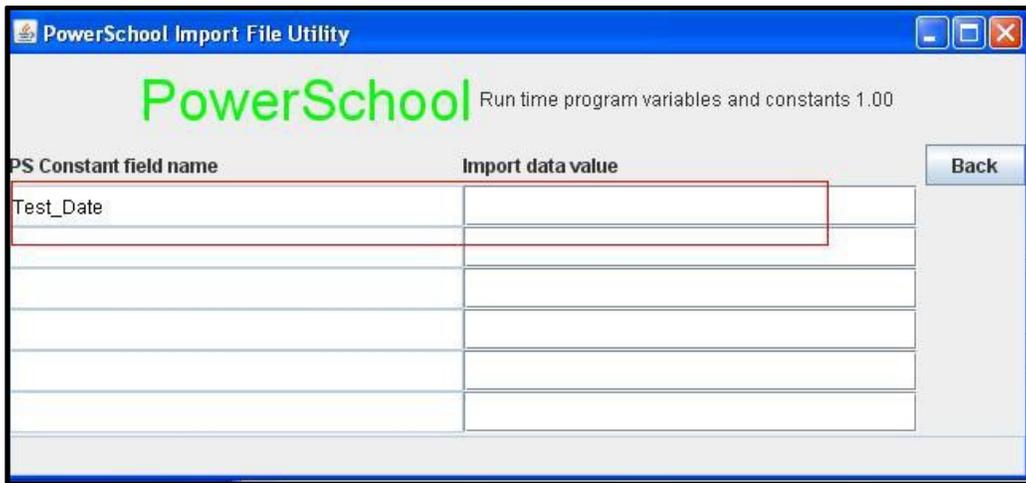
Program Limitations

- The show record form displays a maximum of 4,000 characters for the input record (Java JLabel text limit size).
- The program will read and process large input text records sizes, approximately 64K for Java string size constraints.
- The CSV parsing routine will give an error if a data field is larger than 1,000 characters. The limit is set to insure the data fields are correct and no input record is missing field delimiters.
- The delimited file column names are set to upper case when saving and comparing the column name in the input file and the parameter file (not case sensitive).

SAT education level code	Description	PowerSchool Grade level
1	Not yet in 8th grade	07
2	8th grade	08
3	9th grade	09
4	10th grade	10
5	11th grade	11
6	12th grade	12
7	No longer in High School	Spaces

- If a delimited file column names occurs more than once in the input file, the first occurrence of the column name will be used as the data value when parsing the record.
- All data fields are trimmed, removing leading and trailing spaces from the data, before saving the data value in the output file. At the present time, there appears to be no data in PowerSchool where the data would require leading spaces.

Error Messages

Error messages are displayed on the bottom line of each form. The program will not allow the next step to continue until the input is correct.

Error opening input file.

The input file is not found or is presently in use by another program.

Error input file not entered.

The input file name must be entered to convert the data.

Error input file not found.

The input file specified is not found on the specified file directory and path.

Error conversion parameter file not found.

The specified conversion parameter file is not found on the specified file directory and path.

Error Oracle database connection file not found.

The Oracle connection is file named "PS.TXT" is not found in the specified file directory and path.

Error output file name not entered.

The output file name must be entered to convert the data.

Error output file exists.

The specified output file already exists. The program will not over-write the file, insuring you do not lose valuable data. Either delete this file name or enter a different output file name that does not exist.

Error cannot open the PS Oracle database connection

The connection string found in the file "PS.TXT" is either invalid or the network connection to the Oracle database server is not available.

Error Run Option parameters need to be entered.

The program has run option program variables and constants which have not been entered. Press the "Run Opts" button to view and enter run time parameters.

Error no PowerSchool CSV field names entered.

No PowerSchool field names have been entered for the delimited file conversion.

Error no PowerSchool field names entered.

No PowerSchool fields names have been entered fie the fixed format record file conversion.

Error the PS connection is required to find the student number.

The UIC, OrigStuId, or LastFistDOB conversion option is set and the PS database connection file has not been specified to query the database for the student number

Error field name invalid from/to column value.

In the fixed format conversion From or To value is not numeric, or the To value is less than the From value.

Error Other delimiter value not entered.

The other delimiter option is specified without an entry in the other data parameter.

Error invalid start row number or name row number entered.

The start row number or name row number must be numeric.

Error invalid start row number 1..9999

The starting row number must be greater than zero (0).

Error invalid start row number entered.

The start row number or name row number must be numeric.

Error field name row number is expected to be from 1 to 20.

The field name row number must be zero (no field names), or a value of 1 to 20 is expected for this option to be valid.

Saving Input Parameters for Sharing

In many cases the import parameter file can be shared with many people for common import routines. The input parameters can be used and not changed by the users, by manually updating the parameter file with a "NOSAVE" option.

When the no save option is entered the field input values and Save Button on the entry form are disabled. The users are able to view the import parameters, without making any changes, except for running the conversion program.

Open the parameter file for the conversion in Notepad. The records have a two digit record type 00, 01, 02, and 03. The parameter data is formatted with the fields name, an equal sign ("="), and the parameter value, delimited by a tab character. DO NOT MODIFY THE DATA IN THE RECORDS; you may remove one of the tab characters in the file that you do not see.

1. Position the cursor on line two of the file and press the insert button. This will insert a new record in the file at record number two.
2. In the blank line in record two, as shown above, enter the value "01NOSAVE".
3. Click on the Notepad "File" option and Save you parameter file.
4. Exit Notepad with your saved changes.

Running the Conversion Program

Press the Run button. The program will verify the input parameters and check that the PS Oracle database connection is working. If the setup parameters are valid, then the program will display the run status using a status bar, found on the left hand side of the form. When the status bar shows "Completed", then the output file is created.

It suggested that you review the output file using Notepad or Excel, before using the file to import into PowerSchool. You may find some conversion problems or missing student numbers, requiring manual correction, before doing the PowerSchool import.
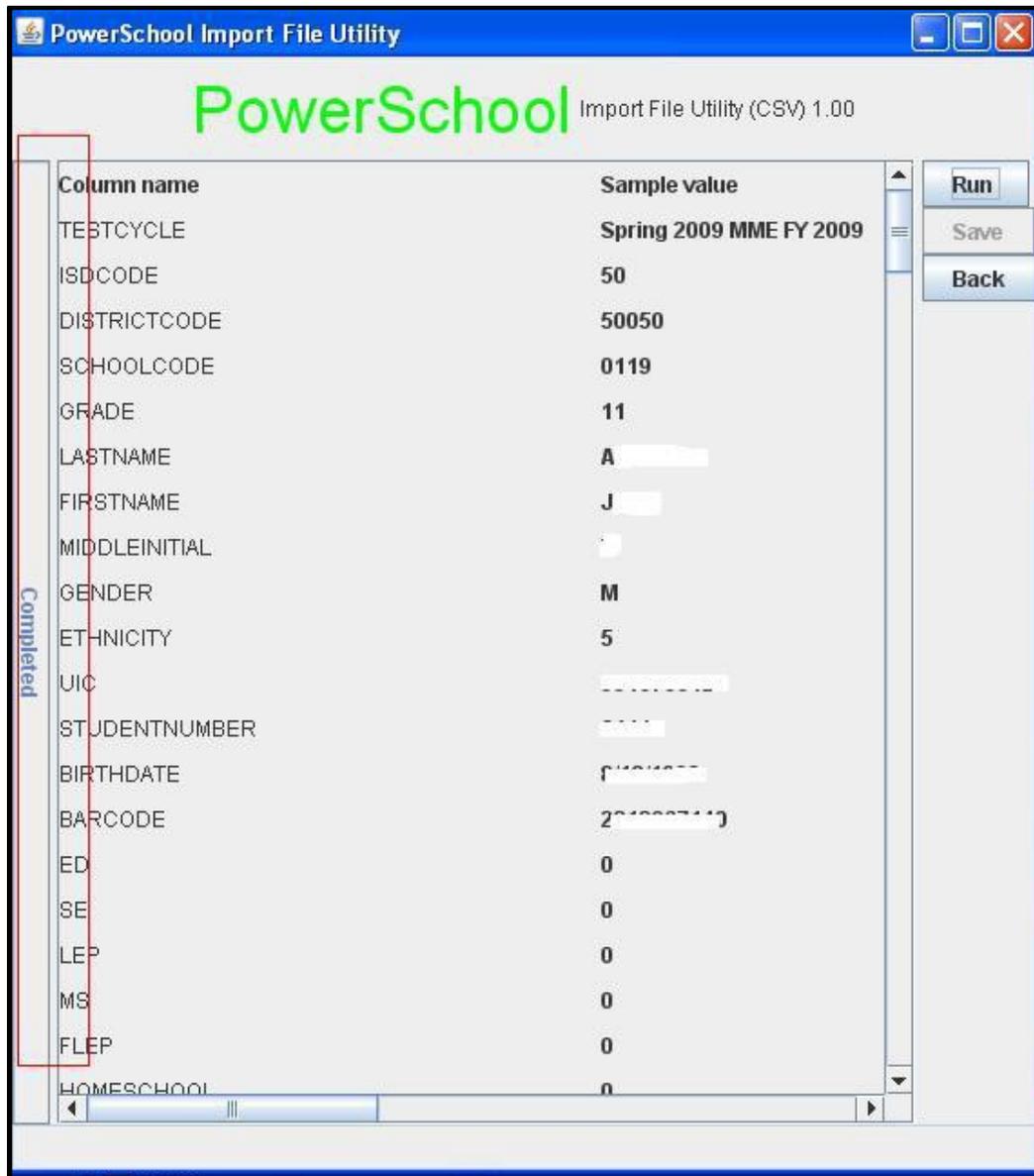
Version Notes

Version 1.01

Added conversion routines for ELPA test score reporting and improved the speed of the UIC number lookup in PowerSchool

Version 1.02 November 2010

Added the option to read files in UTF-16 encoded file format. Most of the new files received from the State of Michigan are now in this file format.

Version 1.05 September 2011

The capability was added to convert a PowerSchool student number to a UIC number. This may be used to send data to other systems, using the student UIC number. The conversion option name is "StuToUIC".

Version 1.06 December 2011

Add the capability to convert the PowerSchool student number to a UIC number (AddUIC) and the PowerSchool UIC code to a student number (AddStu). The converted values are appended to the end of the output record, keeping the original input field for reference.

Version 1.07 April 2012

The option AddStuID provides the capability to convert the student UIC number to the internal PowerSchool student ID. This feature is used to import student data into PowerSchool virtual tables.

Version 1.11 June 2014

The option NumericOnly provides the ability to exclude fields that are not numeric. For example: the value NA (Not applicable) is set to spaces for importing into a PowerSchool test   numeric or percentage data attribute.

Version 1.12 June 2014

The option WIDAaltA converts WIDA alternate access values (A1,A2,A3,P1,P2,P3,NA) to numeric values (1,2,3,4,5,6,0) for importing into numeric PowerSchool test values.

Version 1.13 January 2015

The option SATlevel converts the SAT test data attribute "education level" to a PowerSchool grade level