

Clever SFTP Instructions

December 9, 2019

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1 Introduction

Clever is a service for transferring school information in a secure manner from a school database to an application. This document explains how to use the Clever SFTP to automate the transfer of school information to Clever-enabled applications.

2 General SFTP Setup

The Clever SFTP Server is located at <sftp://sftp.clever.com> (Port 22).

Username and password for the SFTP Server are unique to each Clever account and provided upon sign up. You can retrieve your credentials on the “Sync Settings” page of your Clever dashboard via <https://schools.clever.com/sync/settings>.

Uploads must contain five CSV files, with the following filenames:

`schools.csv`

`students.csv`

`teachers.csv`

`sections.csv`

`enrollments.csv`

Files should be uploaded to your account’s home directory (`/home/username/`) as frequently as possible, but no more often than hourly.

Clever processes files automatically, 5 minutes after last activity. Files are not deleted or moved after processing; please write over existing files with new uploads.

Details of the file formats are provided in the following section.

You can view the status of you latest upload in your dashboard at <https://schools.clever.com/sync>.

3 Preparing CSV Files

Use the comma separated values format (CSV) for all uploads to the Clever SFTP server.

CSV files should contain field values separated by commas, with line breaks between rows. Double quotes around fields are optional, except when the field value includes a comma, where they are required.

CSV files should contain only active student data. For example, the `students.csv` file should contain all currently enrolled students.

Ingestion of historical or archived data is not supported.

Please use the following specifications for all CSV files:

- CSV **file names** must match specification, including `.csv` suffix
- A **header row** is required. Headers must match the header names in the specification exactly. The order of the columns does not matter. Case-sensitive matching is not required.
- Some **fields are required** - if they are not present, the row will not be processed.
- Some **fields are optional** - they may be left blank. Clever recommends sharing additional fields when possible in order to take full advantage of reporting features in your applications and ensure compatibility with additional applications, should you choose to add them at a later time.
- All **files must be present** for upload to be processed. For example, a directory with only `students.csv` will not be processed.
- Fields **highlighted in yellow** are id values, used to make connections between files (i.e. from an enrollment to a section). Take care to ensure that all links connect to an id existing in the upload.
- CSV files should be encoded in UTF-8 format (<http://en.wikipedia.org/wiki/UTF-8>).

3.1 Preparing schools.csv

The schools.csv file provides school information to Clever. This file is **required** for Clever data upload.

Specification for **schools.csv**

Column Header	Required	Format	Notes
School_id	YES	String	Typically the school local id. Used in all other files. Corresponds to 'sis_id' field in Clever. Must be unique across the district.
School_name	YES	String	Name of school.
School_number	YES	String	District or county school identifier.
State_id	NO	String	State school identifier.
Low_grade	NO	Option	The lowest grade at the school. Can be an integer (1-13), a range (9-13) or "InfantToddler", "Preschool", "PreKindergarten", "TransitionalKindergarten", "Kindergarten", "PostGraduate" or "Ungraded". If value is a range, the lower bound integer will be the grade used.
High_grade	NO	Option	The highest grade at the school. Can be an integer (1-13), a range (9-13) or "InfantToddler", "Preschool", "PreKindergarten", "TransitionalKindergarten", "Kindergarten", "PostGraduate" or "Ungraded". If value is a range, the lower bound integer will be the grade used.
Principal	NO	String	Principal's full name.

Specification for **schools.csv**, continued

Column Header	Required	Format	Notes
Principal_email	NO	Email	Principal's email address. Must match format: x@y.z
School_address	NO	String	School's address. Must be enclosed in double quotes, if includes a comma.
School_city	NO	String	
School_state	NO	String	Two letter abbreviation.
School_zip	NO	String	Alphanumeric 5 or 9 digit ZIP with no punctuation.
School_phone	NO	Integer	a 10 or 11 digit phone number.

3.2 Preparing students.csv

The `students.csv` file provides student information to Clever. In order to provide multiple parent/guardian contacts, you may create multiple rows for a single student with different contact information. This file is **required** for Clever data upload.

Specification for `students.csv`

Column Header	Required	Format	Notes
School_id	YES	String	Primary school of enrollment. School_id must match an id provided in schools.csv upload.
Student_id	YES	String	Unique and constant id for student, may be student_number, state_id, or other unique identifier, to be used in enrollments.csv upload. Corresponds to 'sis_id' field in Clever. Must be unique across the district.
Student_number	NO	String	Local student identifier. Must be unique across the district.
State_id	NO	String	State student identifier.
Last_name	YES	String	
Middle_name	NO	String	May also submit middle initial.
First_name	YES	String	
Grade	NO	Option	Integers for grades 1-13, or "InfantToddler", "Preschool", "PreKindergarten", "TransitionalKindergarten", "Kindergarten", "PostGraduate" or "Ungraded".

Specification for **students.csv**, continued

Column Header	Required	Format	Notes
Gender	NO	Option	Supported values: M F X M <i>Male</i> F <i>Female</i> X <i>Non-binary</i>
Graduation_year	NO	String	
DOB	NO	Date	Date of birth. Use format: MM/DD/YYYY (e.g. 08/01/2012)
Race	NO	Option	Supported values: A B I M P W A <i>Asian</i> B <i>Black or African-American</i> I <i>American Indian or Alaska Native</i> M <i>Multiracial</i> P <i>Hawaiian or Pacific Islander</i> W <i>White</i>
Hispanic_Latino	NO	Option	Supported values: Y N

Specification for **students.csv**, continued

Column Header	Required	Format	Notes
Home_language	NO	Option	Supported values: "English", "Albanian", "Amharic", "Arabic", "Bengali", "Bosnian", "Burmese", "Cantonese", "Chinese", "Dutch", "Farsi", "French", "German", "Hebrew", "Hindi", "Hmong", "Ilocano", "Japanese", "Javanese", "Karen", "Khmer", "Korean", "Laotian", "Latvian", "Malay", "Mandarin", "Nepali", "Oromo", "Polish", "Portuguese", "Punjabi", "Romanian", "Russian", "Samoan", "Serbian", "Somali", "Spanish", "Swahili", "Tagalog", "Tamil", "Telugu", "Thai", "Tigrinya", "Turkish", "Ukrainian", "Urdu", "Vietnamese".
Ell_status	NO	Option	Student's English Language Learner status. Supported values: Y N
Frl_status	NO	Option	Student's lunch status. Supported values: F R N F <i>free</i> R <i>reduced</i> N <i>no discount</i>
IEP_status	NO	Option	Student's special education status. Supported values: Y N
Student_street	NO	String	Students's address. Must be enclosed in double quotes, if includes a comma.
Student_city	NO	String	

Specification for **students.csv**, continued

Column Header	Required	Format	Notes
Student_state	NO	String	Two letter abbreviation.
Student_zip	NO	String	Alphanumeric 5 or 9 digit ZIP with no punctuation.
Student_email	NO	Email	Student's email address. Must match format x@y.z
Contact_relationship	NO	String	Contact's relationship to student - e.g. "Father", "Aunt" or "Neighbor".
Contact_type	NO	String	Type of contact - e.g. "family", "emergency" or "guardian". If providing student contacts, then Contact_type is required.
Contact_name	NO	String	If providing student contacts, then Contact_name is required.
Contact_phone	NO	Integer	a 10 or 11 digit phone number.
Contact_phone_type	NO	Option	Type of phone contact Supported values: <i>Cell</i> <i>Home</i> <i>Work</i>
Contact_email	NO	Email	Contact's email address. Must match format x@y.z
Contact_sis_id	NO	String	The unique identifier for this contact, if one exists

Specification for **students.csv**, continued

Column Header	Required	Format	Notes
Username	NO	String	Student's default username if using Clever Passwords for Instant Login. Usernames will be available to connected applications.
Password	NO	String	Student's default password for Instant Login with Clever Passwords.
Unweighted_gpa	NO	String	
Weighted_gpa	NO	String	

3.3 Preparing teachers.csv

The teachers.csv file provides teacher information to Clever. This file is **required** for Clever data upload.

Specification for **teachers.csv**

Column Header	Required	Format	Notes
School_id	YES	String	School of employment. School_id must match an id provided in schools.csv upload.
Teacher_id	YES	String	Unique and constant id for teacher, may be teacher_number, state_id, or other unique identifier, to be used in sections.csv upload. Corresponds to 'sis_id' field in Clever. Must be unique across the district.
Teacher_number	NO	String	Local staff identifier. Must be unique across the district.
State_teacher_id	NO	String	State teacher identifier.
Teacher_email	NO	Email	Teacher's email address. Must match format x@y.z
First_name	YES	String	
Middle_name	NO	String	May also submit middle initial.
Last_name	YES	String	
Title	NO	String	Teacher's role or title.

Specification for **teachers.csv**, continued

Column Header	Required	Format	Notes
Username	NO	String	Teacher's default username if using Clever Passwords for Instant Login. Usernames will be available to connected applications.
Password	NO	String	Teacher's default password for Instant Login with Clever Passwords.

3.4 Preparing sections.csv

The `sections.csv` file provides section information to Clever. Clever will only process sections with enrolled students. Enrollments can be managed in the `enrollments.csv` file (see Section 3.5). This file is **required** for Clever data upload.

Specification for **sections.csv**

Column Header	Required	Format	Notes
School_id	YES	String	Section's school. School_id must match an id provided in schools.csv upload.
Section_id	YES	String	Unique and constant id for section, to be used in enrollments.csv upload. Corresponds to 'sis_id' field in Clever. Must be unique across the district.
Teacher_id	YES	String	Unique identifier of primary teacher for section, must match a Teacher_id found in teachers.csv.

Specification for **sections.csv**, continued

Column Header	Required	Format	Notes
Teacher_2_id	NO	String	Unique identifier of supplementary co-teacher for section, must match a Teacher_id found in teachers.csv
Teacher_3_id	NO	String	Unique identifier of supplementary co-teacher for section, must match a Teacher_id found in teachers.csv
Teacher_4_id	NO	String	Unique identifier of supplementary co-teacher for section, must match a Teacher_id found in teachers.csv
Teacher_5_id	NO	String	Unique identifier of supplementary co-teacher for section, must match a Teacher_id found in teachers.csv
Teacher_6_id	NO	String	Unique identifier of supplementary co-teacher for section, must match a Teacher_id found in teachers.csv
Teacher_7_id	NO	String	Unique identifier of supplementary co-teacher for section, must match a Teacher_id found in teachers.csv
Teacher_8_id	NO	String	Unique identifier of supplementary co-teacher for section, must match a Teacher_id found in teachers.csv
Teacher_9_id	NO	String	Unique identifier of supplementary co-teacher for section, must match a Teacher_id found in teachers.csv

Specification for **sections.csv**, continued

Column Header	Required	Format	Notes
Teacher_10_id	NO	String	Unique identifier of supplementary co-teacher for section, must match a Teacher_id found in teachers.csv
Name	NO	String	Clever will generate a name using "Course Name - Teacher Last Name - Period" if course name is provided, otherwise, the section name provided here will be used. If neither course name nor section name is provided, Clever will use "Teacher Last Name - Period."
Section_number	NO	String	Section identifier, set by school or district.
Grade	NO	Option	Grade level for section. Can be an integer (1-13), a range (9-13) or "InfantToddler", "Preschool", "PreKindergarten", "TransitionalKindergarten", "Kindergarten", "PostGraduate" or "Ungraded". If value is a range, the lower bound integer will be the grade used. If a section does not have a grade or if all sections have the same grade, Clever will assign a grade for each section based on the most common grade of enrolled students.
Course_name	NO	String	Name of the course associated with the section (e.g. Algebra). Will be used to create section names.
Course_number	NO	String	Identifier for the course associated with the section (e.g. 100). Frequently used in combination with the Course_name to identify classes.

Specification for **sections.csv**, continued

Column Header	Required	Format	Notes
Course_description	NO	String	A description of the course associated with the section.
Period	NO	String	Bell schedule information for section (e.g. 1A). Will be used to create section names.
Subject	NO	Option	General class subject. If a section does not have a subject, Clever will assign a subject based on the name of the section. Supported values: <i>English/language arts</i> <i>Math</i> <i>Science</i> <i>Social studies</i> <i>Language</i> <i>Homeroom/advisory</i> <i>Interventions/online learning</i> <i>Technology and engineering</i> <i>PE and health</i> <i>Arts and music</i> <i>other</i>
Term_name	NO	String	The name of the term associated with the section (e.g. "Year", "S1", "Q3").
Term_start	NO	Date	First day of term. Use format: MM/DD/YYYY (i.e. 08/01/2012)
Term_end	NO	Date	Last day of term. Use format: MM/DD/YYYY (i.e. 08/01/2012)

3.5 Preparing enrollments.csv

The `enrollments.csv` file provides enrollment information to Clever. This file is **required** for Clever data upload.

Specification for `enrollments.csv`

Column Header	Required	Format	Notes
School_id	YES	String	School_id must match a School_id provided in schools.csv upload.
Section_id	YES	String	Section_id must match a Section_id provided in sections.csv upload.
Student_id	YES	String	Student_id must match a Student_id provided in students.csv upload.

3.6 Preparing staff.csv

The `staff.csv` file provides information about district and school staff that are not teachers and not in class rosters. Staff are people like principals, instructional coaches, technical coordinators, and district employees. It is expected that staff will have rows for each school or office they are associated with.

Specification for **staff.csv**

Column Header	Required	Format	Notes
School_id	YES	String	ID of school managed by this staff. School_id must match an id provided in schools.csv upload or use DEFAULT_DISTRICT_OFFICE to add the staff to the the Default District Office (Auto-generated) that is provided by Clever.
Staff_id	YES	String	An identifier provided by the district when syncing or creating this staff member. Must be unique across the district.
Staff_email	YES	Email	Staff member's email address. Must be unique amongst staff, and must match format x@y.z Must be unique across the district.
First_name	YES	String	The staff's first name, when available.
Last_name	YES	String	The staff's last name, when available.
Department	NO	String	Department of the staff member.
Title	NO	String	Staff's job title, if specified.
Username	NO	String	Staff's default username for using Instant Login.
Password	NO	String	Staff's default password for using Instant Login.

Specification for **staff.csv**, continued

Column Header	Required	Format	Notes
Role	NO	String	Staff's user role in Clever. The only supported role is School Tech Lead. If this value is School Tech Lead, SchoolTechLead, or STL (case-insensitive) for an staff for any of their schools, the staff is set as a School Tech Lead at all of their schools.

3.7 Preparing [DEPRECATED] admins.csv

This file is **deprecated** and has been replaced by staff.csv.

The [DEPRECATED] `admins.csv` file provides information about school administrators to Clever. School administrators are people like principals, librarians, technical coordinators, and other staff that are not in class rosters. It is expected that admins will have a rows for every school they manage.

Specification for [DEPRECATED] `admins.csv`

Column Header	Required	Format	Notes
School_id	YES	String	ID of school managed by this admin. <code>School_id</code> must match an id provided in <code>schools.csv</code> upload.
Staff_id	YES	String	An identifier provided by the district when syncing or creating this administrator. Must be unique across the district.
Admin_email	YES	Email	Admin's email address. Must be unique amongst school administrators, and must match format <code>x@y.z</code> Must be unique across the district.
First_name	YES	String	The school admin's first name, when available.
Last_name	YES	String	The school admin's last name, when available.
<code>Admin_title</code>	NO	String	Admin's job title, if specified.
<code>Username</code>	NO	String	Admin's default username for using Instant Login.
<code>Password</code>	NO	String	Admin's default password for using Instant Login.

Specification for **[DEPRECATED]** `admins.csv`, continued

Column Header	Required	Format	Notes
Role	NO	String	Admin's user role in Clever. The only supported role is School Tech Lead. If this value is School Tech Lead, SchoolTechLead, or STL (case-insensitive) for an admin for any of their schools, the admin is set as a School Tech Lead at all of their schools.

4 CSV File Processing and Status

Clever emails an upload report once processing is complete, or an error notification if the upload is unable to process in its entirety.

Once an upload has processed you can view information about it and any errors in you dashboard on the sync overview page at <https://schools.clever.com/sync>.

For assistance with file format or resolving errors, please visit our Help Center:
<https://support.clever.com/hc/en-us/articles/203257407>

5 Appendix

This appendix contains a visual representation of what your tables should look like when opened as a spreadsheet in Excel or other programs. Columns **highlighted in yellow** in this appendix are **required** fields.

5.1 Spreadsheet for schools.csv

Columns highlighted in yellow in this appendix are **required** fields.

School_id	School_name	School_number	State_id	Low_grade	High_grade	Principal

...

Principal_email	School_address	School_city	School_state	School_zip	School_phone

5.2 Spreadsheet for students.csv

Columns highlighted in yellow in this appendix are **required** fields.

School_id	Student_id	Student_number	State_id	Last_name	Middle_name	First_name

...

Grade	Gender	Graduation_year	DOB	Race	Hispanic_Latino	Home_language

...

Ell_status	Frl_status	IEP_status	Student_street	Student_city	Student_state	Student_zip

...

Student_email	Contact_relationship	Contact_type	Contact_name	Contact_phone	Contact_phone_type	Contact_email

...

Contact_sis_id	Username	Password	Unweighted_gpa	Weighted_gpa

5.3 Spreadsheet for teachers.csv

Columns highlighted in yellow in this appendix are **required** fields.

School_id	Teacher_id	Teacher_number	State_teacher_id	Teacher_email	First_name

...

Middle_name	Last_name	Title	Username	Password

5.4 Spreadsheet for sections.csv

Columns highlighted in yellow in this appendix are **required** fields.

School_id	Section_id	Teacher_id	Teacher_2_id	Teacher_3_id	Teacher_4_id	Teacher_5_id	Teacher_6_id

...

Teacher_7_id	Teacher_8_id	Teacher_9_id	Teacher_10_id	Name	Section_number	Grade	Course_name

...

Course_number	Course_description	Period	Subject	Term_name	Term_start	Term_end

5.5 Spreadsheet for enrollments.csv

Columns highlighted in yellow in this appendix are **required** fields.

School_id	Section_id	Student_id

5.6 Spreadsheet for staff.csv

Columns highlighted in yellow in this appendix are **required** fields.

School_id	Staff_id	Staff_email	First_name	Last_name

...

Department	Title	Username	Password	Role

5.7 Spreadsheet for [DEPRECATED] admins.csv

Columns highlighted in yellow in this appendix are **required** fields.

School_id	Staff_id	Admin_email	First_name	Last_name

...

Admin_title	Username	Password	Role