

OneRoster CSV Extract Configuration

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PATH: [System Administration](#) > [Data Utilities](#) > [Data Extract Utility](#) > [Data Extract Utility Set Up](#)

This document provides instructions on how to configure the [Data Extract Utility](#) to produce CSV files that match the [OneRoster](#) specification. A OneRoster CSV export produces zip files containing the 11 supported CSV files.

Campus supports OneRoster CSV data in the 1.1 format.

This CSV extract is provided “as is.” It will not be kept up to date, and is not certified by IMS Global. Alternatively, Infinite Campus fully supports the OneRoster specification via an API implementation that supports secure, real time connections between Campus and district’s 3rd-party vendors. Our API implementation is kept up to date and is certified by IMS Global. Infinite Campus makes this OneRoster v1.1 CSV extract available within the Data Extract Utility solely as a courtesy to districts when their 3rd-party vendors have not implemented OneRoster via an API.

All 3rd-party vendors who support OneRoster via their own API implementation should always connect via our API implementation and avoid using OneRoster CSV extracts. If your vendor does not have a OneRoster API implementation currently, Infinite Campus encourages their development team to develop one.

About OneRoster CSV Files

The Learning Information Services (LIS) is a standard developed by IMS Global for the exchange of student data between educational systems. IMS Global created the OneRoster data model for LIS to be more focused on K-12 education. The OneRoster data model allows student data to be exchanged via a REST API or through a set of CSV files.

OneRoster supports bulk and delta CSV exports. A bulk export produces a complete set of the student data while the delta export only contains the most recent changes. A bulk export provides vendors with their initial set of student data and is used to ensure data integrity between the Campus system and vendors. The delta export is intended to run more frequently to keep the Campus vendors up to date. The specific SQL/Prism procedure for bulk and delta is defined in the Campus application for each supported CSV file. These stored procedures allow for the quick configuration of the Data Extract Utility and allows for customers to receive updates without requiring any configuration changes. All of the stored procedures for the CSV export take in type and days arguments. The type argument is required and may be set to bulk to select bulk processing, or it can be set to delta to select delta processing. The days argument is optional and may be set to control how many days worth of data is exported with the delta export. The days argument is set to 1 day by default. This causes the delta export to export data for the last 24 hours.

Campus supports eleven of the fourteen CSV files defined by the OneRoster CSV specification. The three unsupported CSV files are related to importing grade-related data.

Specification Requirements

- All of the CSV header names and filenames are case sensitive.

- The CSV files have pre-defined filenames and each must have the .csv extension.
- The ZIP file can have any filename, but it must have the .zip extension.
- The CSV files must be in the root directory of the zip (no sub-folders).
- The CSV files must include a header row.
- The CSV files must include double quotes around values which contain a comma.
- The CSV files must have a UTF-8 character encoding.

Setting Up The Files

Data Extract Utility must be installed and the user must have the propertool rights to proceed with the following steps. The Data Extract Utility page also contains more information and definitions concerning the fields used to set up the OneRoster CSV Extract Configuration.

The following procedure details steps on how to define bulk and delta exports for each of the 11 supported CSV files.

1. Enter the **Extract Instance Name**.
2. Enter the **File Name**. See table below for a list of supported file names. All of the CSV header names and filenames are case sensitive.
3. Select **SFTP** in the **Delivery Mode** field. This allows the user to enter the file name and file extension.
4. Enter **csv** in the **File Extension** field.
5. Select **CSV** in the **Column Delimiter** dropdown.
6. Select **UTF-8** in the **Character Set** dropdown.
7. Mark the **Include header row?** checkbox.
8. Mark the **Include double quotes?** checkbox.
9. Select **SQL**.
10. From the table below, select the appropriate text from the **SQL/Prism Bulk** column or the **SQL/Prism Delta** column for the desired filename.
11. Enter the appropriate text in the **SQL/Prism** field. For example, to generate a manifest.csv file, copy "EXEC extract_V1P1OneRosterManifest @type = 'bulk'" from the table below and enter the text in the **SQL/Prism** field.
 1. It is recommended to define a bulk export and a delta export for each of the 11 supported CSV files.
12. To **Save**, enter all other required fields (such as **Username** and **Password**).
13. Select the appropriate **Test Extract**, **Test Connection**, and/or **Run Extract** button. Extracts will display in a new window in the selected format.
 - The **Test Extract** button generates the file in the selected format. Data is not written to the database or stored in any location.
 - The **Test Connection** button checks the connection to the entered server by attempting to write a 1-byte file to the location setup. If it is successful, a pop-up displays indicating the connection is good. If it is not successful, the reason the connection failed is displayed.
 - The **Run Extract** button runs and generates the extract. It also sends and stores the file where needed (in case of an issue when it is an auto-run extract).

If multiple vendors need to consume the CSV data, the ZIP file should be exported to a shared location to ensure it is only generated once.

Data Extract Schedule lists the frequency, date, time and day of the week the extract runs. If this needs to stop for any reason, mark the **Stop Automated Extract** checkbox.

The queries used to generate the CSV files are expensive. The bulk and delta CSV export should be scheduled to run during off-peak hours.

Detail Information

*Extract Instance Name :
 OR_bulk_academicSessions

File Name :
 academicSessions

File Extension :
 csv

Column Delimiter :
 CSV

Character Set :
 UTF-8

Username :

Domain :

Server :

SQL Prism AdHoc

*SQL/Prism :
 EXEC extract_V1P1OneRosterAcademicSessions @type = 'bulk'

Delivery Mode
 SMB SFTP FTPS PULL

SSL TLS

Append Date to Filename : (yyyymmdd) (yyyymmddhhmmssSSS)

Include header row? Include double quotes?

Password :

Port : (Default SFTP=22) _____ Path :
 _____ / _____

Use Data Warehouse Connection

Test Extract Test Connection Run Extract

Data Extract Schedule

Stop Automated Extract

Frequency: None

Start Date: _____

Time: _____

Day of Week: _____

Data Extract Utility Configuration, Bulk

Detail Information

*Extract Instance Name :
 OR_delta_academicSessions

File Name :
 academicSessions

File Extension :
 csv

Column Delimiter :
 CSV

Character Set :
 UTF-8

Username :

Domain :

Server :

SQL Prism AdHoc

*SQL/Prism :
 EXEC extract_V1P1OneRosterAcademicSessions @type = 'delta'

Delivery Mode
 SMB SFTP FTPS PULL

Append Date to Filename : (yyyymmdd) (yyyymmddhhmmssSSS)

Include header row? Include double quotes?

Password :

Port : (Default SFTP=22) _____ Path :
 _____ / _____

Use Data Warehouse Connection

Test Extract Test Connection Run Extract

Data Extract Schedule

Stop Automated Extract

Frequency: None

Start Date: _____

Time: _____

Day of Week: _____

Data Extract Utility Configuration, Delta

OneRoster Filenames and Procedures		
Filename	SQL/Prism Bulk	SQL/Prism Delta
manifest.csv	EXEC extract_V1P1OneRosterManifest @type = 'bulk'	EXEC extract_V1P1OneRosterManifest @type = 'delta'
academicSessions.csv	EXEC extract_V1P1OneRosterAcademicSessions @type = 'bulk'	EXEC extract_V1P1OneRosterAcademicSessions @type = 'delta'
categories.csv	EXEC extract_V1P1OneRosterCategories @type = 'bulk'	EXEC extract_V1P1OneRosterCategories @type = 'delta'
classes.csv	EXEC extract_V1P1OneRosterClasses @type = 'bulk'	EXEC extract_V1P1OneRosterClasses @type = 'delta'
courses.csv	EXEC extract_V1P1OneRosterCourses @type = 'bulk'	EXEC extract_V1P1OneRosterCourses @type = 'delta'
demographics.csv	EXEC extract_V1P1OneRosterDemographics @type = 'bulk'	EXEC extract_V1P1OneRosterDemographics @type = 'delta'
enrollments.csv	EXEC extract_V1P1OneRosterEnrollments @type = 'bulk'	EXEC extract_V1P1OneRosterEnrollments @type = 'delta'
lineItems.csv	EXEC extract_V1P1OneRosterLineItems @type = 'bulk'	EXEC extract_V1P1OneRosterLineItems @type = 'delta'
orgs.csv	EXEC extract_V1P1OneRosterOrgs @type = 'bulk'	EXEC extract_V1P1OneRosterOrgs @type = 'delta'
results.csv	EXEC extract_V1P1OneRosterResults @type = 'bulk'	EXEC extract_V1P1OneRosterResults @type = 'delta'
users.csv	EXEC extract_V1P1OneRosterUsers @type = 'bulk'	EXEC extract_V1P1OneRosterUsers @type = 'delta'

Defined Bulk and Delta procedures for each of the supported CSV files. See step 11 in [Setting Up The Files](#) for further instructions.

Create Zip Tool Extract

PATH: *System Administration > Data Utilities > Data Extract Utilities > Zip Tool*

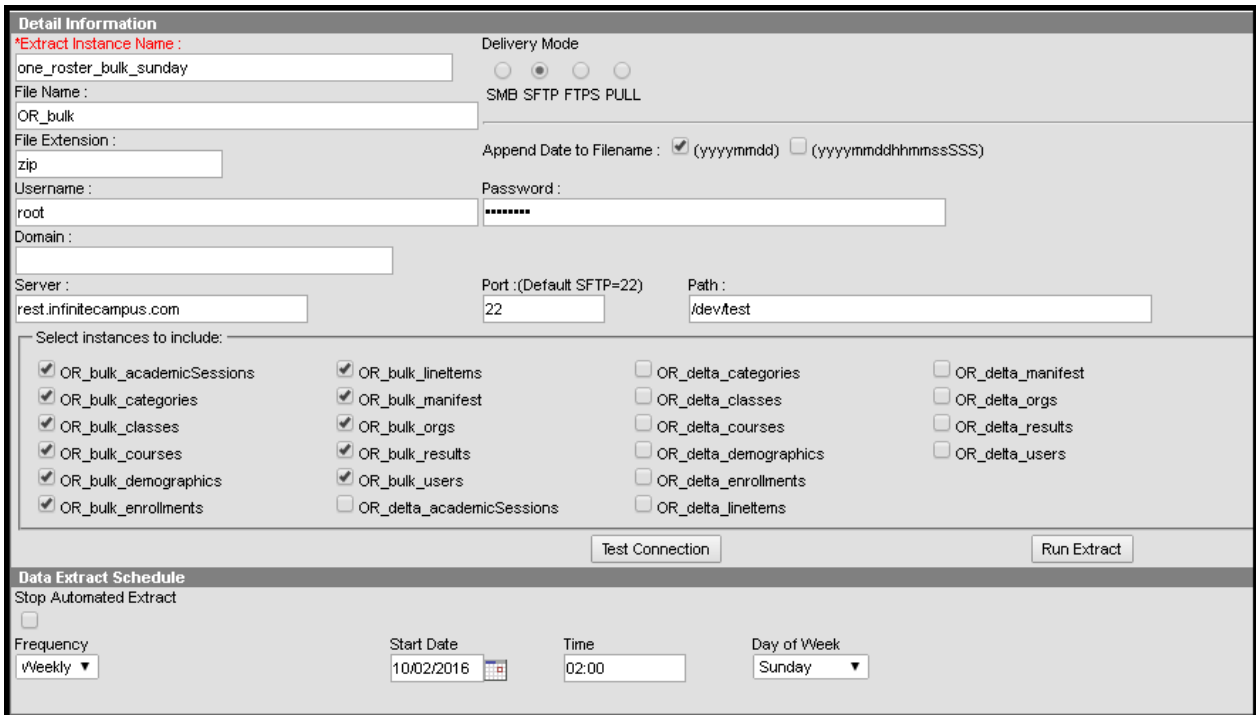
After successfully running the OneRoster CSV Extract, the Zip Tool can be used to export the files to a third party system. Unlike the Utility Set Up tool, the Zip Tool allows users to upload more than one file to export to a third party system.

For more information on the data elements available in the Zip Tool go to the [Data Extract Utility](#) page.

The following procedure details steps on how to use the Zip Tool to export bulk or delta files to a third party system.

1. Select **New**.
2. In the Detail Information editor enter the **Extract Instance Name**.
3. Fill remaining fields with necessary information for defining an export for bulk or delta processing. See images below for examples of a bulk processing configuration and a delta processing configuration.
4. Mark the 11 bulk export or 11 delta export checkboxes.
5. Click **Save**.
6. Select the appropriate **Test Connection** and/or **Run Extract** button. Extracts will display in a new window in the selected format.
 - The **Test Connection** button checks the connection to the entered server by attempting to write a 1-byte file to the location setup. If it is successful, a pop-up displays indicating the connection is good. If it is not successful, the reason the connection failed is displayed.
 - The **Run Extract** button runs and generates the extract. It also sends and stores the file where needed (in case of an issue when it is an auto-run extract).

Data Extract Schedule lists the frequency, date, time, and day of the week the extract runs. If this needs to stop for any reason, mark the **Stop Automated Extract** checkbox.



Detail Information

*Extract Instance Name : one_roster_bulk_sunday

File Name : OR_bulk

File Extension : zip

Username : root

Domain :

Server : rest.infinitecampus.com

Port : (Default SFTP=22) 22

Path : /dev/test

Delivery Mode : SMB SFTP FTPS PULL

Append Date to Filename : (yyyymmdd) (yyyymmddhhmmssSSS)

Password : *****

Select instances to include:

<input checked="" type="checkbox"/> OR_bulk_academicSessions	<input checked="" type="checkbox"/> OR_bulk_lineItems	<input type="checkbox"/> OR_delta_categories	<input type="checkbox"/> OR_delta_manifest
<input checked="" type="checkbox"/> OR_bulk_categories	<input checked="" type="checkbox"/> OR_bulk_manifest	<input type="checkbox"/> OR_delta_classes	<input type="checkbox"/> OR_delta_orgs
<input checked="" type="checkbox"/> OR_bulk_classes	<input checked="" type="checkbox"/> OR_bulk_orgs	<input type="checkbox"/> OR_delta_courses	<input type="checkbox"/> OR_delta_results
<input checked="" type="checkbox"/> OR_bulk_courses	<input checked="" type="checkbox"/> OR_bulk_results	<input type="checkbox"/> OR_delta_demographics	<input type="checkbox"/> OR_delta_users
<input checked="" type="checkbox"/> OR_bulk_demographics	<input checked="" type="checkbox"/> OR_bulk_users	<input type="checkbox"/> OR_delta_enrollments	
<input checked="" type="checkbox"/> OR_bulk_enrollments	<input type="checkbox"/> OR_delta_academicSessions	<input type="checkbox"/> OR_delta_lineItems	

Data Extract Schedule

Stop Automated Extract

Frequency: Weekly

Start Date: 10/02/2016

Time: 02:00

Day of Week: Sunday

Zip Tool, Bulk Processing Configuration

Data Extract Options Editor	
Extract Instance Name	Delivery Mode
one_roster_bulk_sunday	sftp
one_roster_delta_friday	sftp
one_roster_delta_monday	sftp
one_roster_delta_saturday	sftp
one_roster_delta_thursday	sftp
one_roster_delta_tuesday	sftp
one_roster_delta_wednesday	sftp

Detail Information			
*Extract Instance Name :	Delivery Mode		
one_roster_delta_monday	<input type="radio"/> SMB <input checked="" type="radio"/> SFTP <input type="radio"/> FTPS <input type="radio"/> PULL		
File Name :	SMB SFTP FTPS PULL		
OR_delta			
File Extension :	Append Date to Filename : <input checked="" type="checkbox"/> (yyyymmdd) <input type="checkbox"/> (yyyymmddhhmmssSSS)		
zip			
Username :	Password :		
root	*****		
Domain :			
Server :	Port : (Default SFTP=22)	Path :	
rest.infinitecampus.com	22	/dev/test	
Select instances to include:			
<input type="checkbox"/> OR_bulk_academicSessions	<input type="checkbox"/> OR_bulk_linetems	<input checked="" type="checkbox"/> OR_delta_categories	<input checked="" type="checkbox"/> OR_delta_manifest
<input type="checkbox"/> OR_bulk_categories	<input type="checkbox"/> OR_bulk_manifest	<input checked="" type="checkbox"/> OR_delta_classes	<input checked="" type="checkbox"/> OR_delta_orgs
<input type="checkbox"/> OR_bulk_classes	<input type="checkbox"/> OR_bulk_orgs	<input checked="" type="checkbox"/> OR_delta_courses	<input checked="" type="checkbox"/> OR_delta_results
<input type="checkbox"/> OR_bulk_courses	<input type="checkbox"/> OR_bulk_results	<input checked="" type="checkbox"/> OR_delta_demographics	<input checked="" type="checkbox"/> OR_delta_users
<input type="checkbox"/> OR_bulk_demographics	<input type="checkbox"/> OR_bulk_users	<input checked="" type="checkbox"/> OR_delta_enrollments	
<input type="checkbox"/> OR_bulk_enrollments	<input checked="" type="checkbox"/> OR_delta_academicSessions	<input checked="" type="checkbox"/> OR_delta_linetems	
<input type="button" value="Test Connection"/>		<input type="button" value="Run Extract"/>	

Data Extract Schedule			
Stop Automated Extract			
<input type="checkbox"/>			
Frequency	Start Date	Time	Day of Week
vWeekly ▼	07/01/2016	02:00	Monday ▼

Zip Tool, Delta Processing Configuration