Data Extract Utility

Last Modified on 01/24/2025 10:57 am CST

Infinite Campus has announced that the Data Extract Utility Pull method will be discontinued, with an end-of-life date set for June 30th, 2025. Customers currently using this method must transition to an alternative delivery mode before this deadline. After the deprecation, any Pull methods still in use will be automatically converted to SMB (Server Message Block) protocol with non-functioning credentials. Additionally, the Client tool, which is used for authenticating into Infinite Campus, will no longer function correctly and will result in a connection error for users still attempting to utilize this method.

It's important to note that customers using other delivery methods will not be affected by this change. For those impacted, it will be crucial to plan and execute the transition well ahead of the deadline to avoid disruptions in data access and operations.

Tool Search: Data Extract Utility

The Data Extract Utility provides an automated data extract tool for transferring data via a flat file from Infinite Campus servers. This tool can also upload Campus data into third-party software.

This article describes the following topics:

- Setting Up a Data Extract
  - Create a New Extract
  - Setting Up the Data Extract Client to Utilize the Pull Delivery Mode
- Troubleshooting/Errors
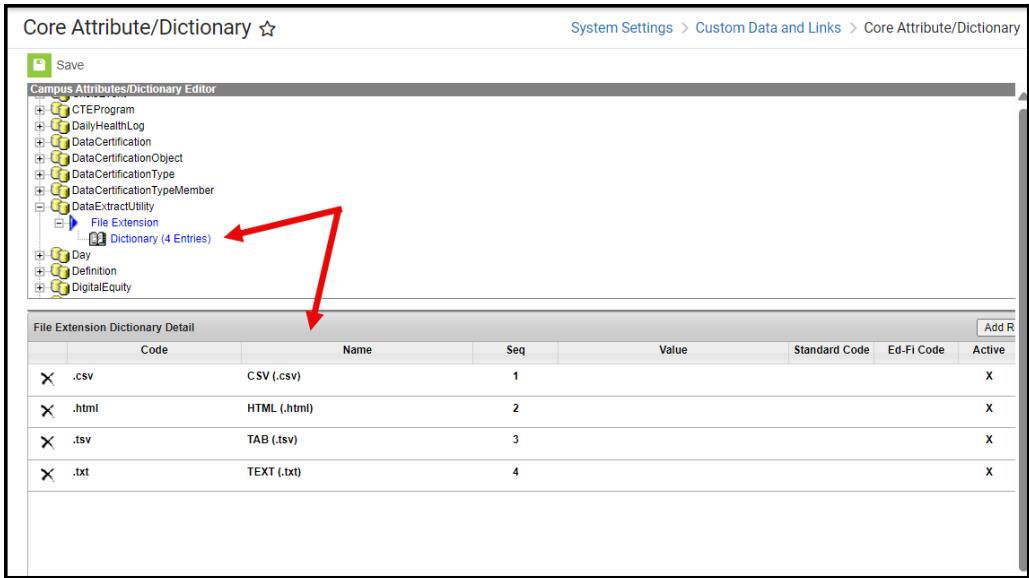
Setting Up a Data Extract

The following table provides definitions of the data elements available in the Data Extract Utility Editor.
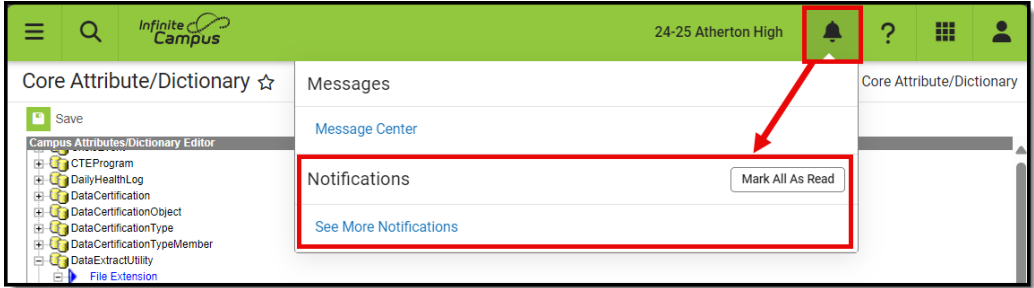
> You can remove Social Security Numbers from reporting in the 3 default extracts by setting the parameter @includeSSN bit = 0
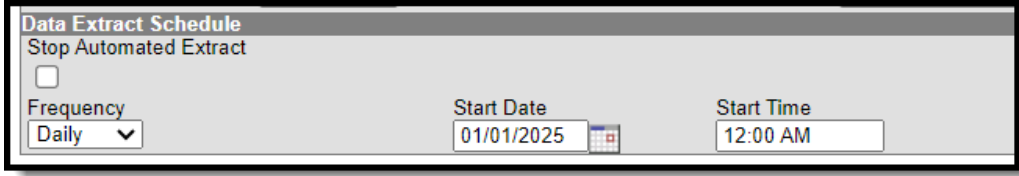
> Your third-party SFTP server must allow list Campus IPs so traffic can pass. For more information, see this article.

Field	Description
Extract Instance Name	The name of the extract.

Delivery Mode	Indicates how the extract will be delivered.
	• **SMB** - *Server Message Block*. This works with an operating system higher than Windows XP; used in Windows networks to allow resources such as files on one machine to be shared on other machines as if they were local.
	• **SFTP Legacy (Being Deprecated)** - *Secure File Transfer Protocol*.
	
	This is an outdated implementation of SFTP that does not support modern key exchange algorithms or cipher algorithms. Users should transition to the other SFTP option as soon as possible to avoid disruptions once this delivery mode is removed.
	
	• **SFTP** - *Secure File Transfer Protocol*. An encrypted form of file transfer between a local system and any system on the network. This is an updated library that supports modern key exchange algorithms.
	• **FTPS** - *File Transfer Protocol Secured*. An encrypted form of file transfer between a local system and any system on the network. This option also allows different encryption methods:
	   ◦ **SSL** (Secure Sockets Layer)
	   ◦ **TLS** (Transport Layer Security)
	• **PULL -** This option can be used in conjunction with the Export Wizard utility. This delivery mode allows for a separate client to be installed on a district server (not to be provided to third-party vendors) and set up to pull the desired extract using HTTPS via a Windows Scheduled task. See the Pull Delivery Mode section for information on using this option.

SFTP Key Exchange	Only applicable if the SFTP Delivery Mode is selected. Indicates you want to use the SFTP Key Exchange for this extract. If you leave the Password field blank, your extract will exclusively authenticate through passwordless SFTP Key Exchange. If you leave the Password field filled in, your extract can failover to authenticating with username/password authentication in the event your SFTP Key Exchange authentication has an issue. See the Data Extract Utility SFTP Key Exchange Manager article for more information on this option and process.

Field	Description
SFTP Key Exchange Configuration	Only applicable if the SFTP Delivery Mode is selected and the SFTP Key Exchange checkbox is marked. If a key pair has been properly configured and tested within the Data Extract Utility SFTP Key Exchange Manager, select the key to be used for authenticating this extract. See the Data Extract Utility SFTP Key Exchange Manager article for more information on this option and process.
File Name	The name of the file as it will appear in the destination folder. Often, a third-party tool needs/requires this file name.
File Extension	Extension of the file. CSV, HTML, TAB, TXT, and custom file extensions can be added through the Core Attribute Dictionary.
Column Delimiter	Indicates how data in the file will be divided. Options are: • **TAB** - Uses the tab character to separate each of the columns used for storing data. • **CSV** - Comma-separated values file is used for data structured in lists. • **Tilde** (~) - Uses the tilde character (~) to separate each of the columns in the file used for data storage. • **Vertical Bar** (|) - Uses the vertical bar character (|) to separate each of the columns in the file used for data storage.

Field	Description
Character Set	Select the character encoding standard used in the file. • **US-ASCII** - The American Standard Code for Information is a common character encoding standard for electronic communication. • **UTF-8** - The Unicode Transformation Format is a variable-width character encoding capable of encoding all valid code points in Unicode using one to four 8-bit bytes.
Append Date to Filename	When selected, includes a date in the file, so as not to overwrite an existing file. Choose the format of the date, either the normal date format of *yyyymmdd* or date and time format of *yyyymmddhhmmssSS.*
Include Header Row?	When selected, a header row will be included as part of the file.
Include Double Quotes?	When selected, quotes around each piece of data in the column are included.
Username	The username used to access the destination server.
Password	Password used to access the destination server.
Domain	The domain of the server connecting to and uploading data from the Data Extract Utility.
Server	The IP Address of the server connecting to and uploading data from the Data Extract Utility. Your third-party SFTP server must allow list Campus IPs so traffic can pass. For more information, see this article. Limited to 100 characters
Port	Indicates the Port value required to connect to the server. • SFTP default = 22 • FTPS default = 990
Path	The location on the destination server where the file will be written. This needs to be an absolute path and include the /upload indicator.

Field	Description
Error Notification	If marked, any errors that occur will send a notification to the Notifications area of Infinite Campus (see below) to all users within the user group selected in the User Group to Notify dropdown list.
User Group to Notify	If an error occurs while using the Data Extract Utility Set Up tool, this group will be notified via a Notifications message. To utilize this functionality, you must have the **Error Notification** checkbox marked.
SQL/Prism	Provides a text area to enter a SQL query or Prism call. Choose the desired SQL or Prism radio button. - If choosing **SQL**, enter the text of the query used to generate the file. - If choosing **Prism**, choose the prism call for a PDF report and add the prism information. This option requires a Firefox browser add-on of Convert Form Methods.
Ad Hoc	If choosing **Ad hoc**, select any saved filter to which the user has rights. This option generates the same filter as in ad hoc and carries over same restrictions. It must complete in 5 minutes. When a user no longer has rights to a filter, the utility stops running on a schedule. Ad hoc filters used by the Data Extract Utility are automatically scoped to data within the active year. This is the equivalent of running the ad hoc filter for the year marked as Active in School Year Setup.
Use Data Warehouse	If the district has a Data Warehouse, use that database instead of the live database.
Ad hoc Filter	When the Ad hoc radio button is selected, this lists every filter available to the user.

Field	Description
Data Extract Schedule	Lists the frequency, date, time, and day of the week the extract runs.

Data Extract Schedule
Stop Automated Extract
☐

Frequency	Start Date	Start Time
Daily ▾	01/01/2025 📅	12:00 AM

Frequency options include:
- None
- Daily
- Weekly

If this needs to stop for any reason, mark the **Stop Automated Extract** checkbox.

Create a New Extract

The creation of new extracts should be done by technical administrators only.

1. Select the **New** icon. A **Detail Information** section will appear.
2. Enter the **Extract Instance Name**.
3. Choose the other necessary items for adding the extract by populating and marking the appropriate fields, as defined above.
4. Click the **Save** icon when finished. You can modify the extract to determine when it should be generated.

At this time, a user can select one of the available buttons to test the extract, test the connection to the database, or run the extract. Extracts will be displayed in a new window in the selected format.

- The **Test Extract** button generates the containing information requested by SQL or Ad hoc. 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. When it is successful, a pop-up displays indicating the connection is good; if it is not successful, it provides the reason the connection failed.
- The **Run Extract** button runs and generates the extract, sends and stores the file where needed (in case of an issue when it is an auto-run extract).

Setting Up the Data Extract Client to Utilize the Pull Delivery Mode

For information on setting up the Data Extract Client to utility the pull delivery mode, see this article.

Troubleshooting/Errors

Error	Explanation
Unable to negotiate key exchange (client: [list of supported algorithms] / server: diffie-hellman-group14-sha1,diffie-hellman-group-exchange-sha1)"	This error means the SFTP server your Campus site is trying to communicate with does not support new enough algorithms to work with the Data Extract Utility's latest SFTP mode. The issue is the SFTP server you're connecting to is only offering up these older key exchange algorithms when your Campus site's Data Extract Utility client tries to communicate with it: - diffie-hellman-group1-sha1 - diffie-hellman-group-exchange-sha1 SHA1 is now considered an insecure key exchange algorithm, so our latest SFTP implementation does not support it. You will need to reach out to the 3rd parties/individuals who administer this SFTP server and request they update their server/SFTP software to support at least any one of any of the more modern and secure key exchange algorithms mentioned in the "client:" part of the error message. As soon as the SFTP server is updated to support any of the more secure key exchange algorithms, then you'll be able to use the latest SFTP mode for any connection currently receiving this error. Until this update occurs, you'll need to continue using the legacy SFTP mode. The legacy SFTP mode is planned for deprecation at some point in the future, so there's ample time, but if you have any server still using only these less secure key exchange algorithms come that time, your connections to this server will no longer function.