

Data Extract Utility

Last Modified on 03/11/2024 8:45 am CDT

Path: System Administration > Data Utilities > Data Extract Utility

The Data Extract Utility provides an automated data extract tool for the purpose of transferring data via a flat file from Infinite Campus servers. This tool can be used to 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](#)

Data Extract Utility ☆
System Settings > Data Utilities > Data Extract Utility

Save Delete New

Extract Instance Name	Delivery Mode	Server	Frequency Scheduled	Extract Mode	Stopped	Last Run
Destiny Student	SMB	ftp.infinitecampus.com		sql	false	
MN_DirectAdmissions	pull			sql	true	
Translations	SMB	127.0.0.1		sql	true	
Transportation	SMB	ftp.infinitecampus.com		sql	false	

Extract instance name

Destiny Student

***File Name**

Student

File Extension
CSV (.csv)

Column Delimiter
CSV

Character Set
US-ASCII

***Username**

icexport

Domain

***Server**

SQL
 Prism AdHoc

***SQL/Prism**

```
SELECT DISTINCT s.studentnumber AS BarCode, ca.SchoolID, s.studentnumber AS Districtid, s.lastname, s.firstname, ISNULL(s.middleName, '') Middle, ISNULL(s.alias, '') Nickname, s.oender,
MAX (CASE WHEN (co.homeroom = 1 or se.homeroomSection = 1) THEN sm.firstname + '+' + sm.lastname ELSE '' END) AS Homeroom
FROM student s
JOIN calendar ca ON ca.calendarid = s.calendarid
JOIN course co ON co.calendarid = ca.calendarid
JOIN section se ON se.courseid = co.courseid
JOIN staffmember sm ON sm.personid = se.teacherpersonid
JOIN roster r ON r.sectionid = se.sectionid AND r.personid = s.personid
JOIN trial t ON t.trialid = se.trialid
```

Delivery Mode

SMB
 SFTP Legacy (Being Deprecated)
 SFTP
 FTPS
 PULL

Append Date to Filename: No Date yyyyymmdd yyyyymmddhhmmssSS

Include header row? Include double quotes?

Password

Port (Default SFTP=22) Path

Error Notification User Group to Notify

Use Data Warehouse Connection

Test Extract Test Connection Run Extract

Data Extract Schedule

Stop Automated Extract

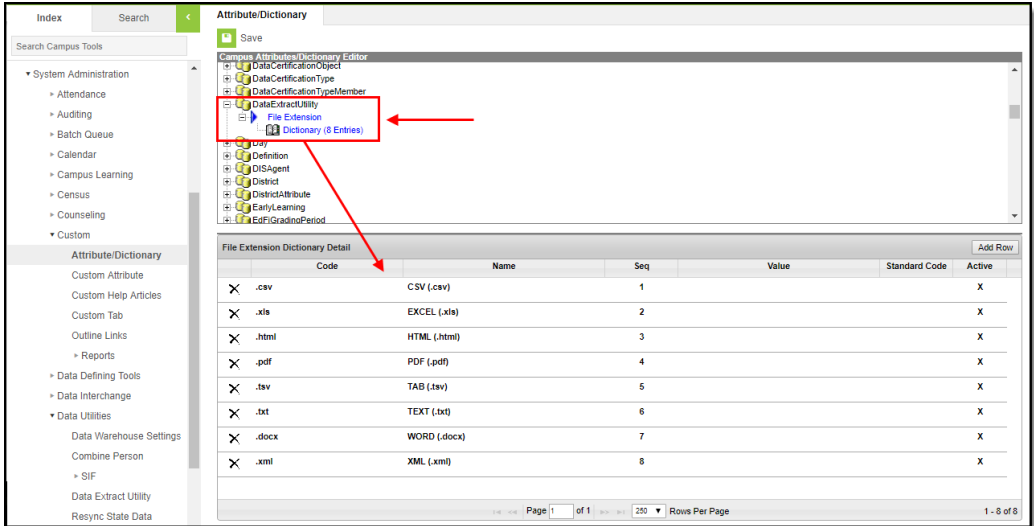
Frequency: None Start Date: 08/25/2022 Start Time: 00:00

Setting Up a Data Extract

The following table provides definitions about 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

Field	Description
Extract Instance Name	The name of the extract.
Delivery Mode	<p>Indicates how the extract will be delivered.</p> <ul style="list-style-type: none"> • SMB - <i>Server Message Block</i>. 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) - <i>Secure File Transfer Protocol</i>. <ul style="list-style-type: none"> 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 in Summer of 2024. • SFTP - <i>Secure File Transfer Protocol</i>. An encrypted form of file transfer between a local system and any system on the network. This is an updated library which supports modern key exchange algorithms. • FTPS - <i>File Transfer Protocol Secured</i>. An encrypted form of file transfer between a local system and any system on the network. This option also allows different encryption methods: <ul style="list-style-type: none"> ◦ 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 setup to pull the desired extract using https via a Windows Scheduled task. See the Pull Delivery Mode section for information on using this option.

Field	Description																																																						
SFTP Key Exchange	<p>Only applicable if the SFTP Delivery Mode is selected.</p> <p>Indicates you want to use the SFTP Key Exchange for this extract.</p> <p>See the Data Extract Utility SFTP Key Exchange Manager article for more information on this option and process.</p>																																																						
SFTP Key Exchange Configuration	<p>Only applicable if the SFTP Delivery Mode is selected and the SFTP Key Exchange checkbox is marked.</p> <p>If a keypair 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.</p> <p>See the Data Extract Utility SFTP Key Exchange Manager article for more information on this option and process.</p>																																																						
File Name	Name of the the file as it will appear in the destination folder. Often a third party tool needs/requires this file name.																																																						
File Extension	<p>Extension of the file.</p> <p>CSV, HTML, TAB, TXT, and custom file extensions can be added through the attribute dictionary.</p>  <p>The screenshot shows the 'Attribute Dictionary Editor' interface. In the left-hand navigation pane, 'Attribute Dictionary' is selected. The main area displays a tree view of the dictionary structure, with 'File Extension' and 'Dictionary (8 Entries)' highlighted by a red box and a red arrow. Below this, a table titled 'File Extension Dictionary Detail' lists the following entries:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Name</th> <th>Seq</th> <th>Value</th> <th>Standard Code</th> <th>Active</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> .csv</td> <td>CSV (.csv)</td> <td>1</td> <td></td> <td></td> <td>X</td> </tr> <tr> <td><input checked="" type="checkbox"/> .xls</td> <td>EXCEL (.xls)</td> <td>2</td> <td></td> <td></td> <td>X</td> </tr> <tr> <td><input checked="" type="checkbox"/> .html</td> <td>HTML (.html)</td> <td>3</td> <td></td> <td></td> <td>X</td> </tr> <tr> <td><input checked="" type="checkbox"/> .pdf</td> <td>PDF (.pdf)</td> <td>4</td> <td></td> <td></td> <td>X</td> </tr> <tr> <td><input checked="" type="checkbox"/> .tsv</td> <td>TAB (.tsv)</td> <td>5</td> <td></td> <td></td> <td>X</td> </tr> <tr> <td><input checked="" type="checkbox"/> .txt</td> <td>TEXT (.txt)</td> <td>6</td> <td></td> <td></td> <td>X</td> </tr> <tr> <td><input checked="" type="checkbox"/> .docx</td> <td>WORD (.docx)</td> <td>7</td> <td></td> <td></td> <td>X</td> </tr> <tr> <td><input checked="" type="checkbox"/> .xml</td> <td>XML (.xml)</td> <td>8</td> <td></td> <td></td> <td>X</td> </tr> </tbody> </table>	Code	Name	Seq	Value	Standard Code	Active	<input checked="" type="checkbox"/> .csv	CSV (.csv)	1			X	<input checked="" type="checkbox"/> .xls	EXCEL (.xls)	2			X	<input checked="" type="checkbox"/> .html	HTML (.html)	3			X	<input checked="" type="checkbox"/> .pdf	PDF (.pdf)	4			X	<input checked="" type="checkbox"/> .tsv	TAB (.tsv)	5			X	<input checked="" type="checkbox"/> .txt	TEXT (.txt)	6			X	<input checked="" type="checkbox"/> .docx	WORD (.docx)	7			X	<input checked="" type="checkbox"/> .xml	XML (.xml)	8			X
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Field	Description
Column Delimiter	<p>Indicates how data in the file will be divided. Options are:</p> <ul style="list-style-type: none"> • 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.
Character Set	<p>Select the character encoding standard used in the file.</p> <ul style="list-style-type: none"> • 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	<p>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 <i>yyyymmdd</i> or date and time format of <i>yyyymmddhhmmssSS</i>.</p>
Include Header Row?	<p>When selected, indicates a header row will be included as part of the file.</p>
Include Double Quotes?	<p>When selected, includes quotes around each piece of data in the column.</p>
Username	<p>Username used to access the destination server.</p>
Password	<p>Password used to access the destination server.</p>
Domain	<p>The domain of the server connecting to and uploading data from the Data Extract Utility.</p>
Server	<p>The IP Address of the server connecting to and uploading data from the Data Extract Utility.</p>
Port	<p>Indicates the Port value required to connect to the server.</p> <ul style="list-style-type: none"> • SFTP default = 22 • FTPS default = 990
Path	<p>The location on the destination server where the file will be written. This needs to be absolute path and include the /upload indicator.</p>

Field	Description
Error Notification	<p>If marked, any errors which 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.</p> 
User Group to Notify	<p>This group will be notified via a Notifications message if an error occurs while using the Data Extract Utility Set Up tool. You must have the Error Notification checkbox marked in order to utilize this functionality.</p>
SQL/Prism	<p>Provides a text area to enter a SQL query or Prism call. Choose the desired SQL or Prism radio button.</p> <ul style="list-style-type: none"> ▪ 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	<p>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.</p> <p>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.</p>
Use Data Warehouse	<p>If district has Data Warehouse, use that database instead of the live database.</p>
Ad hoc Filter	<p>When the Ad hoc radio button is selected, this lists every filter available to the user.</p>
Data Extract Schedule	<p>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.</p>

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. Additional modifications may be made to the extract to

determine when the extract should be generated.

At this time, a user can select the available buttons to test the extract, test the connection to the database or run the extract by selecting one of the appropriate buttons. Extracts will display 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
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Error	Explanation
<p>Unable to negotiate key exchange</p> <p>(client: [list of supported algorithms] / server: diffie-hellman-group14-sha1,diffie-hellman-group-exchange-sha1)"</p>	<p>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:</p> <ul style="list-style-type: none"> • diffie-hellman-group1-sha1 • diffie-hellman-group-exchange-sha1 <p>SHA1 is now considered an insecure key exchange algorithm, so our latest SFTP implementation does not support it.</p> <p>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.</p> <p>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.</p> <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #ccc;"> <p>The legacy SFTP mode is planned for deprecation in Summer 2024, so there's ample time, but if you have any sever still using only these less secure key exchange algorithms come that time, your connections to this server will no longer function.</p> </div>