

Patron Import Converter



Patron Import Converter (Simple)

Getting Started

While you can manually add or edit a patron in Destiny, the standard method for adding and updating patron records is to import an XML file at the district level.

You can use the Patron Import Converter (PIC) to change patron data from a comma-delimited format (a CSV file) into an XML (extensible markup language) file format that conforms to the Destiny patron file format for import. This document provides an overview of the Patron Import Converter process. Use it to guide you through configuring the PIC, converting your CSV data, and uploading the XML file into Destiny.

With the PIC, you can:

- Upload data for one school or for an entire district in one file.
- Add, update, transfer or delete patrons.
- Compare the previous and current CSV files, and then convert and upload only the updated records.
- Automate the conversion and upload processes.

The PIC can quickly process very large CSV files. The Patron Import Converter replaces the Transform utility and the Patron Conversion utility.

Note: The PIC does not accept files with tab-delimited or fixed-length fields. It does accept comma-delimited input files and CSV files.

Once you have configured the PIC, you can automatically convert and upload your patron data on a regular basis using Destiny's Scheduled Patron Update feature.

Note: To use features involved in uploading, scheduling or modifying the scheduled process, you must have the *Manage Patrons for the District* permission.

Process Overview

With the Patron Import Converter, you will convert data from a CSV format into the Destiny XML format, and upload it using the following procedures:

1. [Export patron data from your Student Information System \(SIS\) to a CSV text file.](#)
2. [Assign the fields in your CSV file to those in Destiny, and then set up default values for those fields not in your CSV file.](#)
3. [Add any mapping or formatting to the selected fields.](#)
4. [Save the configuration as a "properties" file \(`mapping.properties` or `student.properties`\).](#)
5. [Upload the file you have to Destiny](#), or schedule an upload of the CSV to Destiny each day. Typical methods to schedule an upload include:
 - Scheduling a job based on a CSV file being copied to your Destiny server.
 - Scheduling a job to pick up a CSV on your SFTP server.
 - Scheduling a job to pick up a CSV on Follett's Hosted SFTP server.



CSV File Requirements

Destiny cannot directly extract the patron data from an Student Information System (SIS). You must export the data to a CSV file, and convert it to XML format, before Destiny can process the information.

Note: You may need to contact your SIS vendor for information about exporting patron data to a CSV data file.

There is a lot of flexibility in the format of the CSV file. The CSV file must have:

- The expected values in the expected CSV fields.
- At least one field that maps to a Destiny patron record field.
- Either a District ID or a barcode number and Site Short Name to uniquely identify each patron.
- A Last Name field.

About Character Encoding

For the CSV file, the PIC uses Windows Latin (Cp1252) encoding by default. If it encounters any illegal characters, the conversion process fails.

You can use any of the following character encodings for the CSV file:

- ASCII
- UTF8
- Cp1252
- UTF-16
- ISO8859_1

Notes:

- The Patron Import Converter always creates an XML file with UTF8 encoding.
- Other encodings are available, but they have not been tested with Destiny. You can view the full set of supported encoding values at:
<http://download.oracle.com/javase/1.5.0/docs/guide/intl/encoding.doc.html>.
- If the CSV file is not in Windows Latin (for example, a SQL Management Studio query result saved as CSV), the PIC may not be able to preview the data. In this case, copy and paste a line into Notepad, and use this for previewing the data.

Available Fields

The following table defines the fields that can be updated. Besides the required fields mentioned above, you can include any or all of these fields in your CSV file. It is helpful to share this list with those who will be creating the CSV, so they can see the available fields and limitations of those fields.

Note: For fields that require specific output (see the Comments in each field for expected values), you can use the Patron Import Converter's mapping feature. If a field will have a consistent value that can be used to assign another field, you can map those CSV fields to the values Destiny is expecting. See [Map the Fields](#).



Destiny Field	Configuration File Field	Max Length	Comments
Site Short Name	field_siteShortName	10	Required. Must match site short name, or an Alias, entered in district configuration. If not in the CSV file for a single school, enter it in the properties file.
Barcode	field_barcode	14	Required when adding a patron. Must be unique in a school. Value of "autoassign" causes Destiny to assign the next available barcode number to the patron. Cannot use "autoassign" when matching by Barcode and Site short name.
District ID	field_districtID	40	Optional if not used for matching or required on Edit District page. Must be unique in the district.
Last Name	field_lastName	42	Required.
First Name	field_firstName	42	
Middle Name	field_middleName	42	
Nickname	field_nickname	30	
Patron Type	field_patronType	30	If not specified, default is used. If unknown, Patron Type is created. S and F not accepted for Student and Faculty.
Access Level	field_accessLevel	30	If not specified, default is used.



Destiny Field	Configuration File Field	Max Length	Comments
Resource Group	field_resourceGroup	30	Only applies to Destiny Resource Manager sites. If not specified, default is used.
Status	field_status	1	A, I or R (Active, Inactive or Restricted) Defaults to A if blank or invalid.
Gender	field_gender	1	M, F, U. Defaults to U (Unspecified) if blank or invalid.
Homeroom	field_homeroom	90	
Grade Level	field_gradeLevel	30	
Card Expires	field_cardExpires	10	Format as required on Edit District page.
Acceptable Use Policy on File	field_isAcceptableUsePolicyOnFile	5	True, T, False, F, Yes, Y, No or N
Is Teacher	field_isTeacher	5	True, T, False, F, Yes, Y, No or N
User Defined 1	field_userDefined1	30	
User Defined 2	field_userDefined2	30	
User Defined 3	field_userDefined3	30	
User Defined 4	field_userDefined4	30	
User Defined 5	field_userDefined5	30	
Graduation Year	field_graduationYear	4	YYYY
Birth Date	field_birthdate	10	Format as required on Edit District page.



Destiny Field	Configuration File Field	Max Length	Comments
User Name	field_username	50	Optional. Unique within the district. Required if updating the Password field.
Password	field_password	50	
Email 1	field_emailPrimary	128	
Email 2	field_emailSecondary	128	
Email 3	field_email3	128	
Email 4	field_email4	128	
Email 5	field_email5	128	
Address 1 Line 1	field_addressPrimaryLine1	42	
Address 1 Line 2	field_addressPrimaryLine2	42	
Address 1 City	field_addressPrimaryCity	42	
Address 1 State	field_addressPrimaryState	42	
Address 1 Postal Code	field_addressPrimaryZipCode	20	
Address 1 Phone 1	field_addressPrimaryPhoneNumberPrimary	30	
Address 1 Phone 2	field_addressPrimaryPhoneNumberSecondary	30	
Address 2 Line 1	field_addressSecondaryLine1	42	
Address 2 Line 2	field_addressSecondaryLine2	42	
Address 2 City	field_addressSecondaryCity	42	
Address 2 State	field_addressSecondaryState	42	



Destiny Field	Configuration File Field	Max Length	Comments
Address 2 Postal Code	field_addressSecondaryZipCode	20	
Address 2 Phone 1	field_addressSecondaryPhoneNumberPrimary	30	
Address 2 Phone 2	field_addressSecondaryPhoneNumberSecondary	30	

Get the Patron Import Converter

There are many ways to access the PIC. Follett recommends the following steps:

1. Create a working folder in an easy-to-access location.
2. Find the Patron Import Converter files in one of the following ways:

To	Then...
Download from Update Patrons	<ol style="list-style-type: none"> a. Log in to Destiny as a District User with Manage Patrons for the District permission. b. Select Back Office > Update Patrons > Schedule sub-tab. c. Click Schedule It. The Schedule Patron Update page appears. d. Click the Patron Import Converter link, and choose to run or download and run based on your browser configuration. <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Add Scheduled Patron Update</p> <p>*Job name <input type="text"/></p> <hr/> <p>*Patron Data File Information</p> <p><input checked="" type="radio"/> Directory <input type="text"/></p> <p><input type="radio"/> SFTP URL <input type="text"/></p> <p>User Name <input type="text" value="districtALL"/> <input type="button" value="Test Server"/></p> <p>Password <input type="password" value="*****"/></p> <hr/> <p>File name <input type="text"/></p> <p>File encoding windows-1252</p> <p>Change properties file</p> <p>*Properties file <input type="button" value="Choose File"/> No file chosen</p> <p style="text-align: center;"><input type="button" value="Download the Patron Import Converter for Windows"/></p> <p style="text-align: center;"><small>*Required Field</small></p> </div> <ol style="list-style-type: none"> e. Extract to your working folder before use.



To	Then...
Use Download Tools	<ol style="list-style-type: none"> Log in to Destiny as a District Patron Manager. Select Back Office > Download Tools sub-tab. Next to Patron Import Converter, click Download. Extract to your working folder before use.
Download all utilities	<ol style="list-style-type: none"> Log in to Destiny as a Destiny Administrator. At the bottom of the Setup > District Options sub-tab, click Download. Extract to your working folder before use.
Browse server	<p>From the server, browse to your installation's <code>\FSC-Destiny\fsc\bin</code> folder. It should contain the following files:</p> <ul style="list-style-type: none"> <code>PatronImportConverter.exe</code> <code>PatronImportConverter.l4j.ini.sample</code> <code>patronimport.properties.sample</code>

3. Copy your CSV file to the working folder.

Configure the Patron Import Converter

With the Patron Import Converter application, you can open, edit and save your properties file. Once you have selected the parameters for matching, skipping and deleting, you can run the CSV-to-XML conversion from the application.

If you prefer to edit the properties file directly, see the Advanced Configuration Options for the Patron Import Converter.

The easiest way to configure the properties file is to open the CSV file.

Note: If you do not have the CSV file but know its contents and format, you can configure the properties file without opening the CSV file.

Configure the properties using the following steps:

- [Map the fields in the CSV file to those in the Destiny patron record.](#)
- [Specify the format for dates](#), [change incoming CSV field values to those that Destiny uses](#), and [enter custom mapping and formatting](#) where needed.
- Define the way the XML Upload [matches patrons](#) and under what conditions the upload should [update or delete patrons](#).

Prepare CSV File

- In your working folder, double-click `PatronImportConverter.exe`.

Note: The PIC searches your computer's registry for a Java Virtual Machine (JVM). If it cannot find one, a browser window opens, allowing you to download the free JVM from Oracle. The website provides complete instructions. You may be required to have administrative access to download or install Java. Please contact your local IT Team if you encounter problems installing Java. After successfully downloading the JVM, try again.

- To select the CSV file, click **Browse**, and then find and select the file.
 - The first several records appear on the **Data Preview** tab.
 - If you do **not** open the CSV file, enter the **Number of fields on each row**.

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- If you open the CSV file, the **Number of fields on each row** is automatically populated, and the fields are grayed out (disabled).
 - To re-enable a field and clear the **Preview** pane, in the lower corner, click **Clear**.
3. If your CSV file contains any header rows, next to the **Data begins on row** field, enter the row number of the first patron record. This is designed to skip rows that do not have the same number of fields that your patron data has. For steps to skip header rows (rows that define the names of the columns in the CSV), see [Skip, Delete and Associate Patrons](#).

Map the Fields

You can map to any or all fields in the patron record. You can map the same CSV field to multiple Destiny fields. You do not have to map all fields in the CSV to Destiny fields.

1. Open the **Field Mapping** tab.
2. For each field in CSV file, find the corresponding **Destiny Field**, and click the **CSV Input Field** next to it. From the list that appears, select the corresponding field number.
3. To verify the CSV field maps to the correct Destiny field, review the bottom pane: In the **Sample Output** column, verify the selection.

If none of the fields need special mapping or formatting, skip to [Match Patrons](#).

Define PIC Action for Empty Fields

You can define the Patron Import Converter's action when it encounters an empty CSV field that you mapped to a Destiny field:

- To clear the existing value in a Destiny field that's missing an incoming CSV value, select the checkbox in the **Include Empty Tag** column. This inserts an empty field.

Example: In the **Include Empty Tag** column next to `<FirstName></FirstName>`, select the checkbox, and for records without incoming values, the upload will clear the **Homeroom** and **Grade Level** fields.

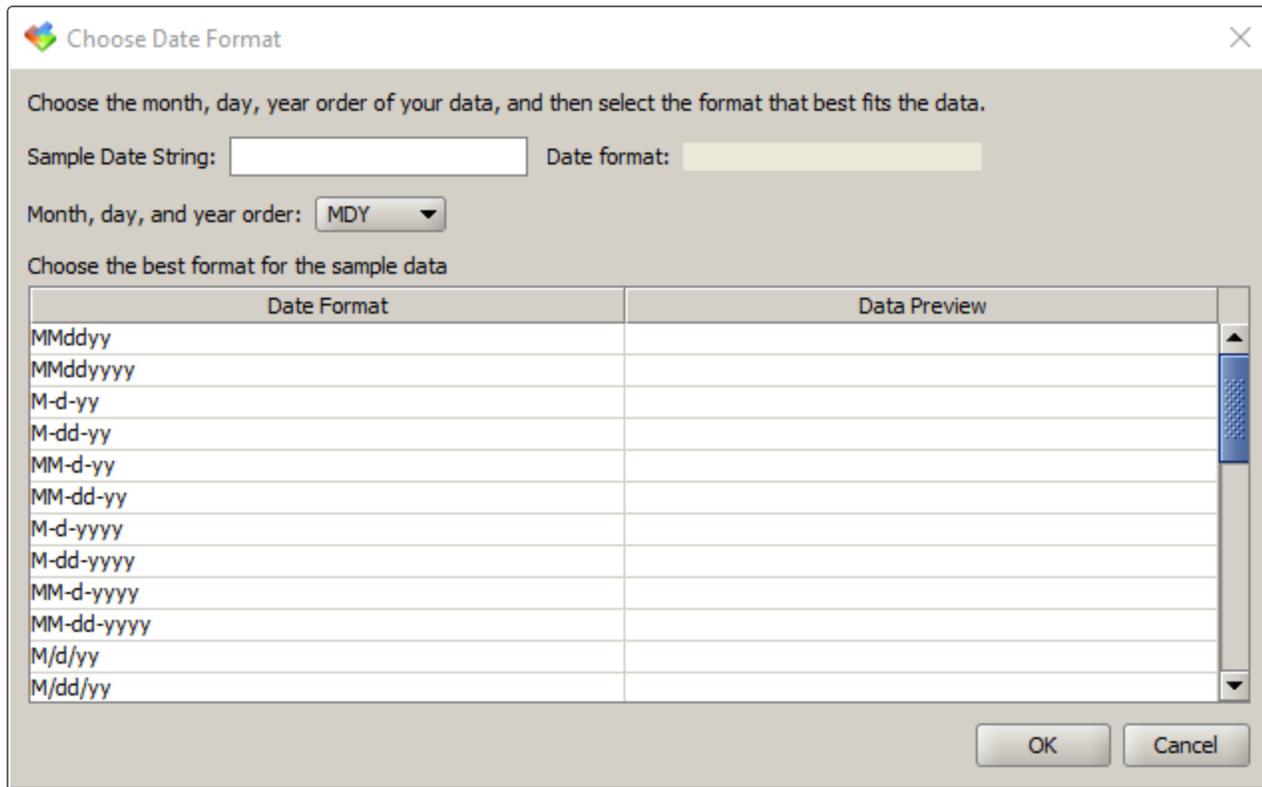
- To preserve the existing value in a Destiny field that's missing an incoming CSV value, deselect the checkbox in the **Include Empty Tag** column. This inserts no element in the XML file, thus preserving the existing value in Destiny. In the example above, the Upload will preserve all the existing values except Homeroom and Grade Level for records without incoming values in them.
- To have the Patron Import Converter insert the contents of another field when it encounters an empty field, see [Advanced Configuration Options for the Patron Import Converter](#).

Format the Fields

If you need to specify the format for dates, change the incoming CSV field values to those that Destiny uses, or apply special processing to any fields, use the options in the **Format** column.

Format Date Fields

For a field containing a date, click in its **Format** column and select **DATE** from the list that appears. The Choose Date Format pop-up appears.



1. Review the **Sample Date String** from the CSV file and, from the **Month, day, and year order** drop-down, select the order.
2. In the **Date Format** column, select the format that best matches the CSV file.
3. Click **OK** to close the pop-up.
4. To verify your choice, select any of the records in the bottom pane of the **Field Mapping** tab, and then check its date in the **Sample Output** column.
5. If you need to reopen the Choose Date Format pop-up, click the field name in the **Destiny Field** column on the **Field Mapping** tab.

Change Incoming CVS Values to Destiny Values

Note: Follett recommends using **Site Short Name Aliases** to map **Site Short Names**.

1. Log in as a Destiny Administrator.
 2. Select **Setup > Sites** sub-tab.
 3. Click the edit icon next to your district. The Edit District page appears.
 4. Near the bottom of the page, click the **Short Names and Aliases** button. The Update District Aliases page appears.
 5. Add an **Alias**.
 6. Click **Save**.
1. For fields other than Site Short Names whose values require mapping, select **MAP** in the **Format** column next to the field. The Field Mapping Values pop-up opens.
 2. Click **Add Mapping**.

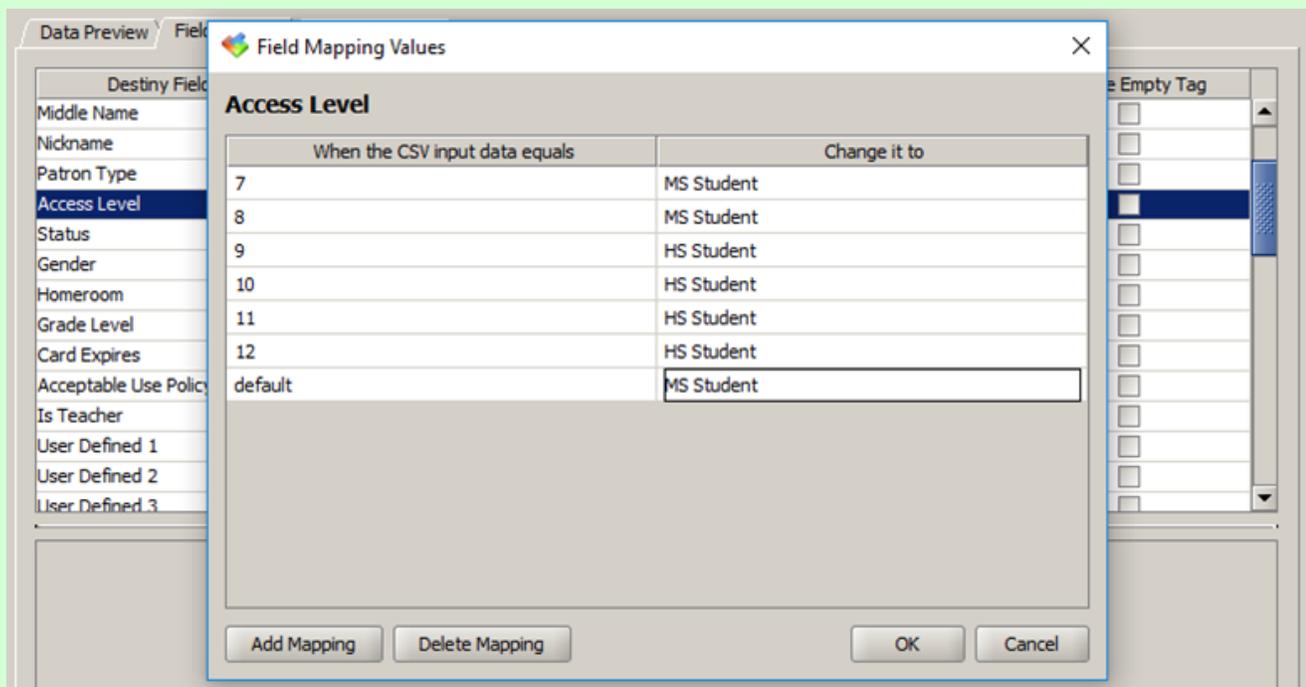
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- For each row:
 - In the **When the CSV input data equals** field, enter the value from the CSV file.
 - In the **Change it to** field, enter the replacement value.
- Click **OK** when you are done.
- (Optional) To define a default value for this field (a value to use if the CSV data does not match any other defined mapping values), enter "default" in the **When the CSV input data equals** field, and a value in the **Change it to** field.
- To verify your mapping, select any of the records in the bottom pane of the **Field Mapping** tab, and then check its mapped value in the **Sample Output** column.
- If you need to reopen the Field Mapping Values pop-up, click the field name in the **Destiny Field** column on the **Field Mapping** tab.

Example: Your CSV file contains the numbers 7 through 12, in a **Grade Level** field and you have mapped this field to the Destiny's **Grade Level** field.

If the **MS Student Access Level** and **HS Student Access Level** exist in Destiny, you can also map this field to them:

- You can MAP **7** and **8** to **MS student**, and **9** through **12** to **HS student**. The upload then assigns the **MS Student Access Level** to all 7th and 8th graders and **HS Student Access Level** to all 9th to 12th graders.
- In case any incoming records do not contain a **Grade Level**, you could also define a **default** value of **MS Student**.



Enter Custom Mapping and Formatting

For a field whose values require special formatting, concatenation or added text, select **CUSTOM** in the **Format** column. The Edit Custom Format pop-up appears.

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1. Enter your custom formatting string.

Important: Do not add quotation marks or CDATA statements. The PIC inserts the necessary CDATA statements into the XML file.

2. Click **OK**.
3. To verify your formatting in an open CSV file, select any of the records in the bottom pane of the **Field Mapping** tab, and then check its formatted value in the **Sample Output** column.

Examples:

- Your CSV file contains a field for the **Homeroom number** and a field for the **Homeroom adviser**. If you would like to enter both in Destiny's **Homeroom** field, specify the field numbers, surrounding them with braces: {6} {13} and insert text (a "literal string") to improve readability: " - Room".
- You only have one site in Destiny and do not have the required **Site Short Name** field in your CSV. If you want everyone to be in Main Street High School (Site Short Name = MSHS):
 - a. Choose **CUSTOM** from the **Format Column** without choosing a CSV Input Field.
 - b. Type MSHS into the **Edit Custom Format** field that appears.
 - Click **OK**.

Now all patrons will be given a MSHS Site Short Name in the XML.

If you need to reopen the Edit Custom Format pop-up, double-click the field name in the **Destiny Field** column on the **Field Mapping** tab.

For more information on concatenation, substrings and date or number formatting, see [Advanced Configuration Options for the Patron Import Converter](#).

Match Patrons

Before importing them, Destiny checks to see if incoming patrons already exist in your database.

Destiny can determine whether an incoming patron is a match to an existing patron by comparing either the **District ID** or the **Site Short Name** and the patron's barcode number.

Note: Follett recommends that you use **District ID** (the unique number for the patron in the district). This enables the conversion or upload process to transfer patron records from one school to another. Follett also recommends only matching on **Barcode** and **Site Short Name** when you need to update the **District ID** for patrons.

1. Open the **Patron Matching** tab.
2. Under **Match patrons using their**, select the unique identifier your school or district uses.

Skip, Delete or Associate patrons

By default, the PIC adds information to the XML file that instructs Destiny to add or update each incoming patron record. However, you can configure the PIC to skip, delete or associate patron records with an additional school, based in criteria you define. Once you define the conditions, the PIC can identify the records and perform the correct action.

Important: Be sure to choose the setting **ANY (OR)** or the setting **ALL (AND)** carefully:

- **ANY** means "If ANY of the rules match, do this".
- **ALL** stands for "Only do this if ALL rules match".



Example: If you want to skip based on the **Patron Type** field being Teacher or Faculty, it must be set to **ANY**, since no patron record could have a Patron Type of Teacher AND Faculty.

To	Then...
<p>Skip Patrons</p>	<ol style="list-style-type: none"> 1. On the Patron Matching tab, click the Skip Rules sub-tab. 2. At the bottom, click Add. 3. Click Destiny Field, and select the field from the list. 4. Click Contains this value, and enter the value that will make the PIC skip the record. 5. Repeat steps 2 - 4 for any additional conditions. 6. Decide whether a record must meet ANY or ALL conditions to be skipped, and select that option under Skip patrons when. <p>As the Patron Import Converter processes each CSV record, it tests the data. If the data matches the conditions you define, the PIC skips the record.</p> <p>Note: To skip a header record, configure the table to skip the record when encountering the header values.</p> <p>Example: If the word "barcode" is the header of the patron barcode column, skipping any data with "barcode" in the record would skip the header record.</p>
<p>Delete Patrons</p>	<ol style="list-style-type: none"> 1. On the Patron Matching tab, click the Delete Rules sub-tab. 2. At the bottom, click Add. 3. Click Destiny Field, and select the field from the list. 4. Click Contains this value, and enter the value that will make the Patron Import Converter tell Destiny to delete the record. 5. Repeat steps 2 - 4 for any additional conditions. 6. Decide whether a record must meet ANY or ALL conditions to be deleted, and then select that option. 7. To update a patron record before deleting it, select the Update before delete checkbox. (The Destiny database retains archived information for all patrons.) This is useful to assign information that will be archived during the delete. <p>As the Patron Import Converter processes each CSV record, it tests the data. If the data matches the conditions you define, the PIC tells Destiny to delete the patron record.</p> <p>Note: Destiny will not delete anything by default. If you add Delete Rules, the file generated will delete patrons who meet the conditions and do not have outstanding transactions (checkouts, fines, etc...).</p> <p>To remove patrons with outstanding transactions during the upload, select the Allow patrons with outstanding transactions to be deleted checkbox in the Back Office > Update Patrons > Upload Changes sub-tab or in the Back Office > Update Patrons > Schedule sub-tab, Scheduled Patron Job page.</p>



To	Then...
Associate Patrons	<p>While most patrons have a single site association – the school where they teach or attend classes – the Patron Import Converter can associate patrons with additional sites. You may want to do this for students who attend classes, or faculty who teach classes, at multiple schools.</p> <p>When you upload a patron record for the first time, a patron's site association is determined by the Site Short Name in the patron record. On subsequent uploads, if the Site Short Name is different, Destiny updates the Site Short Name – in effect, transferring the patron to that school. Once you set up your Multiple Association Rules, the PIC can tell Destiny to <i>add</i> a site association to the patron record instead of <i>replacing</i> it. Destiny designates the first site association as the Primary site and any additional associations as Secondary sites.</p> <ol style="list-style-type: none"> 1. On the Patron Matching tab, click the Multiple Association Rules sub-tab. 2. At the bottom, click Add. 3. Click Destiny Field, and select the field from the list. 4. Click Contains this value, and enter the value that will make the PIC tell Destiny to add a site association. 5. Repeat steps 2 - 4 for any additional conditions. 6. Decide whether a record must meet ANY or ALL conditions to be associated with multiple sites, and then select that option. <div style="background-color: #e0ffe0; padding: 10px; margin: 10px 0;"> <p>Example: The Patron Import Converter will match patron records by comparing the District ID in the existing and the incoming record.</p> </div> <p>The PIC will tell Destiny to add a site association to any patron record it matches, instead of transferring it between sites.</p>

Save the Configuration in the Properties File

Now that you have configured the PIC, click **Save** to save the configuration in the properties file. You will need to provide a filename to save the settings:

- If you are working on your local computer, provide a name of your choosing, such as `studentupdate.properties`
- If you are working on configuring a patron upload job for automated processing, make sure that you choose this properties file in the **Change properties** file section of the Scheduled Patron Update configuration.
- If you are working with an existing configuration used by Destiny's Scheduled Patron Update feature, save the changes you have made with the existing `patronimport.properties` filename, and upload it in the **Change properties file** section of the Scheduled Patron Update configuration.

Run the Patron Import Converter

Once you have edited the properties file, you can test your configuration by running the Patron Import Converter to generate the XML file. When satisfied, you can then manually upload the XML data and upload the configuration file into Destiny's Scheduled Update job. Follett recommends running the PIC once when configuring a scheduled upload, as any issues with the PIC would be encountered during the conversion process of the Scheduled Patron Upload.

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1. Click **Run**.

Note: You must save your properties file before the **Run** button becomes available.

2. Choose a **File name** for the XML file you are going to create. Follett recommends saving it in your working folder, and saving it with a filename that relates it to the CSV and properties file it is converted from.
3. Allow the process to complete. The PIC will try to open the created XML file with the assigned program (typically Internet Explorer in Windows).
4. The PIC creates two files: the XML file and a log file named `<filename>-log.txt`. The PIC writes any exceptions to the log file. At the end of the log file is a summary count of the number of rows skipped and the number of errors.

Upload the XML File to Destiny

Manual Upload

The last step in the process is to upload the XML file to Destiny.

Important: Do not use **Back Office > Import Patrons**. It is not designed to accept XML and will respond with a “header” error in the Job Summary.

1. Log in to the district as a district-level user district with the *Manage Patrons for the District* permission.
2. Select **Back Office > Update Patrons > Upload Changes** sub-tab.
3. By default, Destiny retains patron records during an upload. To allow the upload to delete patrons who have current checkouts or fines, select **Allow patrons to be deleted even if they have outstanding transactions**. If the upload could delete patrons who have current checkouts or fines – and you are going to allow that, select **Allow patrons to be deleted even if they have outstanding transactions**. Otherwise, Destiny retains their patron records. If you select the checkbox, any copies checked out to the patrons are marked Lost, and any other transactions (fines, holds, reserves) are deleted from the system.
4. Click **Browse** (or **Choose File**, depending on your browser) to find and select your XML file.
5. To begin the processing, click **Update Patrons**.
6. On the confirmation message, click **Yes**.
7. The Job Manager appears, and you can view a listing of all the updated patrons.

Schedule the Upload

Typical methods to schedule an upload include:

- Scheduling a job based on a CSV file being copied to your Destiny server.
- Scheduling a job to pick up a CSV on your SFTP server.
- Scheduling a job to pick up a CSV on Follett's Hosted SFTP server.



Advanced Configuration Options for the Patron Import Converter

This document outlines CUSTOM formats and other available options for converting CSV information to XML data. It assumes you have your CSV and patronimportconverter.exe files available.

1. In your working folder, double-click `PatronImportConverter.exe`.
2. To select the CSV file, click **Browse**, and then find and select the file.
3. Click the **Field Mapping** tab.

Enter Custom Mapping and Formatting

For a field whose values require special formatting, concatenation or added text, select **CUSTOM** in the **Format** column.

Id Mapping Patron Matching				
d	CSV Input Field	Format	Sample Output	Inclu
		MAP		
		DATE		
		CUSTOM		

The Edit Custom Format pop-up appears.

Important: Do not add quotation marks or CDATA statements. The PIC inserts the necessary CDATA statements into the XML file.

Use Literal Fields (Static Fields)

Literal fields are fields where the data does not change. You can type an entry, and it will apply to all patrons that are processed through the Patron Import Converter.

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Example:

You only have one site in Destiny and do not have the required **Site Short Name** field in your CSV file. Each patron will be in Main Street High School (Site Short Name = **MSHS**).

1. In the **Format** column, select **CUSTOM** without choosing a **CSV Input Field**. The Edit Custom Format pop-up appears.
2. Type **MSHS**, and then click **OK**.

All patrons will be given a MSHS Site Short Name in the XML.

Combine Fields (Concatenation)

You can combine fields in the Edit Custom Format pop-up. Each field can be referenced by the column number assigned to it. To reference the field number, wrap it in braces {}.

Examples:

1. To reference the **districtid** in the example image below, place {3} in the Edit Custom Format pop-up.

Field 1	Field 2	Field 3	Field 4	Field 5	Field 6	Field 7	Field 8	Field 9	Field :
barcode	siteshortname	districtid	lastName	firstName	middleName	gender	status	gradelevel	homeroom ▲

2. Let's say Field 13 in your CSV file contains the homeroom number, and Field 6 contains the homeroom adviser. If you want to reference both in Destiny's **Homeroom** field, enter the field numbers, surrounding them with braces: {6} {13}

Result: A patron with adviser Jones in homeroom 25 will show "Jones25" in Destiny's **Homeroom** field.

You can also combine literal characters and field numbers. To see "25 – Jones" in Destiny's **Homeroom** field, enter {13} – {6}.

Map Empty Fields

To have the PIC insert the contents of another field when it encounters an empty field, use the IEMPTY command on a separate line. Be sure to specify all parts of the command:

- The IEMPTY command
- The field to evaluate
- The field to insert if the evaluated field is blank
- The field to insert if the evaluated field is not blank

Example: In this example, if Field 7 is blank, the PIC will populate it with the contents of Field 6. Otherwise, it will populate Field 7 with its own contents:

```
IEMPTY ({7}, {6}, {7})
```

Let's say Field 7 contains the patron's nickname, and Field 6 contains the patron's first name. IEMPTY ({7}, {6}, {7}) would prompt Destiny to show the nickname when it is available and the first name if it is not.

Important: Be sure to format the command as shown in the example, including all brackets, commas and

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parentheses.

Use and Combine Partial Fields

Substring is a programming function that takes two values. The first value is a character location, and the second is how many characters to keep from that starting location.

Note: Working with substrings can be complicated and may require some trial and error.

To work with parts of a field in the Patron Import Converter, you can use the substring command. This command lets you use a portion of a CSV field to make another field. The amount of characters is not variable. You must specify a starting character that will be used every time. To use this, you will need the parts of the command in this order:

- The field number
- The word "substring"
- The letter or number to start at (counting from left)
- How many characters to use from that starting point

Examples:

1. Let's say Field 5 contains the data 1234567890. If you want to start at position 4 and keep 2 of the characters, in the Edit Custom Format pop-up, enter `{5,substring (4,2)}`. The Destiny field will show **45**.
2. Let's say Field 5 in your CSV file is a phone number, but you want Destiny to show the area code, prefix and line number separated. In the Edit Custom Format pop-up, enter:
`{{5,substring (1,3)}} {5,substring (4,3)}-{5,substring (7,4)}`.

What does it mean?

- **area code** `{{5,substring (1,3)}`: Within literal characters for parentheses, the first substring tells the converter to read field 5 starting at character 1, and then keep 3 characters.
- Then a space is added as a literal character.
- **prefix** `{5,substring (4,3)}`: The second substring tells the converter to read field 5 starting at character 4, and then keep 3 characters.
- Then a hyphen is added as a literal character.
- **line number** `{5,substring (7,4)}`: The last substring tells the converter to read field 5 starting at character 7, and then keep 4 characters.

Result: In Destiny, the patron record would show the formatted phone number: (123) 456-7890.