

# Slingshot's Guide to Data Files

Steps to provide timely course material delivery for your students

In order for Slingshot to provide automated book fulfillment services, your institution will need to be able to systematically answer four basic questions:

### **1. WHAT?**

Slingshot will need to know what courses and sections are being offered within each upcoming term and program.

### **2. WHEN?**

Slingshot will need to know when the class starts and when the class ends.

### 3. WHO?

Slingshot will need to know who is currently enrolled in each class.

### 4. WHERE?

Slingshot will need to be given accurate shipping address information for each enrolled student, as well as residential dorm information, if available.

Once these questions can be answered timely, accurately, and automatically, Slingshot can

# INSTITUTION TO SLINGSHOT

The preceding questions will be answered with three basic files that will be required from each institution. These files will bring in catalog data (example: term, courses, and sections) as well as customer information (example: student ID's and student enrollment schedules). These three files can be summarized as: **Catalog, Customer,** and **Enrollment**.

#### **Catalog**

This file brings in the catalog data (example: assigned faculty, section start/end date, current enrollment figures) that is tied to each course and will answer in part the 'What?' question and 'When?' question.

#### **Customer**

This file tells us basic customer/student information (example: student ID to use for billing and shipping address information) and will answer in part the 'Who?' question and the 'Where?' question. This file also tells us basic faculty information (example: faculty name and ID) and must match the faculty

#### **Enrollment**

This file tells us which student is enrolled in which class and links the courses & sections with the student information contained in the customer file. This file in part answers the 'Who?' and the 'What?' questions.

#### **Understanding the Process**

Custom queries will need to be developed by the institution to pull the required fields out of the institution's ERP and translate the data into the formatted files required by Slingshot. These files will need to be configured to be generated hourly (minimum nightly) and be transferred through a Secure FTP. Slingshot's server will be configured to pick these files up and import them into our systems. Data files must contain all data fields and should be formatted as ASCII CSV files.

# **CATALOG IMPORT FILE**

CHARACTER LIMITS

Division Name	This should start with the institution abbreviation (ex. TTU). It is determined in collaboration with the Slingshot Account Manager and must remain consistent with the <b>Enrollment</b> file.	64
Term Code	This is determined in collaboration with the Slingshot Account Manager and must remain consistent with the <b>Enrollment</b> file. Term codes must be unique across all divisions.	50
Department	This will be the course prefix of the department. For example, the Biology Department could be BIO or BIOL (Note: the department should be derived from the course code. For example, BIOL can be derived from the course code BIOL2010.) It is important to understand that this will display to students on Slingshot's portal. This must remain consistent with the <b>Enrollment</b> file.	64
Course Code	This will be the campus course code and must remain consistent with the <b>Enrollment</b> file.  Example: BIOL 101 or PSYC 270	16
Course Description	This will be the description of each course. Example: Introduction to Biology	64
Course Credit Hours	This field is used to pass the credit hours for each course. If a range of credit hours is available for a course, pass the lower end of that range (has to be #'s 0-100).	4
Section	This will be your campus section code; for example, 01, 1, A, 02 L, etc. There is a 16-character limitation for section.	16
Instructor ID Number	This will be the Customer ID number of the instructor assigned to this section. This needs to be the same as the Customer ID number field in the <b>Customer</b> file record for this faculty member. It is used in Slingshot's course material adoption process. This is case sensitive.	30
Estimated Enrollment	The preferred data here is the anticipated number of students that will enroll in this class.  If that's not available, then the maximum seat capacity should be populated.	10
Actual Enrollment	This is the current number of enrolled students.	10
Section Start Date	This will be the start date of the class (yyyy-mm-dd). The end date should not be before the start date. <i>Example</i> : 2013-01-01	NA
Section End Date	This will be the end date of the class (yyyy-mm-dd).	NA
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#### Note:

- Once adoption (required book information) collection starts for a particular term, the format/structure of the term's data (term name, department code, course name, section code) within the Catalog file must not change. Doing so will cause all course material information in Slingshot's system to be lost and result in the inability of Slingshot to fulfill those books.
- · All fields must contain data as blank fields will result in an error
- Catalog file must be 12 columns ending with the section end date column
- Include header row for clarity of data identification

#### **Examples of how the data should be formatted in the Catalog import file:**

- 1. "Division name","term code","department name","course code","course description","course credit hours","section",
  "instructor ID number","estimated enrollment","actual enrollment","section start date","section end date"
- 2. "UNIV-Undergrad","FA2013UNI","BIOL","BIOL 101","Introduction to Biology","3","01","0021354","25","7","2013-01-01","2013-05-01"

### **ENROLLMENT IMPORT FILE**

CHARACTER LIMITS

Customer ID Number	This will be the Customer ID Number and must match the <b>Customer</b> file.	30
Division Name	This is determined in collaboration with the Slingshot Account Manager and must remain consistent with the <b>Catalog</b> file.	64
Term Code	This is determined in collaboration with the Slingshot Account Manager and must remain consistent with the <b>Catalog</b> file. Term codes must be unique across all divisions.	50
Department Name	This will be the letter abbreviation of the department. For example, Biology Department could be BIO or BIOL. (Note: if department names are not typically used on campus, the department name can be derived from the course code. For example, BIOL can be derived from the course code BIOL2010.) It is important to understand that the department names will display to students on Slingshot's portal. This must remain consistent with the <b>Catalog</b> file.	64
Course Code	This will be the campus course code and must remain consistent to the <b>Catalog</b> files. Example: BIOL 101 or PSYC 270	16
Section	This will be the campus section code. There is a 16-character limitation for Section. Example: 01, 1, A, 02 L, etc.	16
Section Start Date	This will be the class start date (yyyy-mm-dd). This should remain consistent to the <b>Catalog</b> file. <i>Example: 2013-07-25</i>	NA

#### Note:

- $\bullet$  All customers in the Enrollment import file must exist in the Customer file
- All Division Names, Terms Codes, Department Codes, and Section Codes must exist in the Catalog import file
- Unless noted, all fields must contain data as blanks will result in an error
- Must be 7 columns ending with the Section Start Date column
- Include a header row for clarity of data identification

#### **Examples of how the data should be formatted in the Enrollment import file:**

1. "0021354","UNIV-Undergrad","FA2013UNI","BIOL","BIOL 101","2A","2013-07-25"

# **CUSTOMER IMPORT FILE**

CHARACTER LIMITS

Customer ID Number	This is the student or faculty ID number. This cannot be blank. If faculty, this needs to exactly match the string that's found in the <b>Catalog</b> file, <b>Instructor ID Number</b> . This field is case sensitive.	30
First Name	First name of the student/faculty member.	48
Last Name	Last name of the student/faculty member.	48
Alias	This is an identifier of student type. If line entry is student, this can be blank. If faculty, this should be "Faculty".	NA
Email Address	Student/faculty member's university email address.	255
Billing Account Number	The account number that will be used when charging a student's account, typically the customer ID number.	NA
Ship to Name	Customer's first & last name. If faculty, this field can be blank.	NA
Ship to Address	Customer's shipping address. If faculty, this field can be blank.	128
Ship to City	Customer's shipping city. If faculty, this field can be blank.	64
Ship to State	Customer's shipping state abbreviation. If faculty, this field can be blank.	2
Ship to Postal Code	Customer's shipping postal code. If faculty, this field can be blank.	16
Ship to Country	Customer's shipping country. If faculty, this field can be blank. Please use USA for United States.	32
Phone	Customer's shipping phone. If faculty, this field can be blank.	17
Dorm Info	This will be the student's dorm name and room number. If off campus, put "Off Campus".	NA
Notes	Leave blank unless instructed to do otherwise.	NA

#### Note:

- Should not contain duplicate customer ID's nor email addresses
- Unless noted, all fields must contain data as blanks will result in an error
- Must be 15 columns ending with Notes column
- Include a header row for clarity of data identification
- If Slingshot is also managing mail delivery on your campus, then the file should include all individuals that might receive mail, not just students and faculty.

#### **Examples of how the data should be formatted in the Customer import file:**

- 2. "0021354","Jane","Doe","Faculty","jdoe@school.edu","Jane Doe","1213 N Sycamore Ave","Bigcity","IN","12345","USA"

# **CUSTOMER IMPORT FILE | MAIL**

For Mail Service Operations, this Customer Import File process should be followed for all individuals who might receive mail on

CHARACTER LIMITS

Customer ID Number	This is the student, faculty, or staff ID number. This cannot be blank. If faculty, this needs to exactly match the string that's found in the Catalog file, Instructor ID Number. This field is case sensitive.	30
First Name	First name of the student, faculty, staff member.	48
Last Name	Last name of the student, faculty staff member.	48
Alias	This is an identifier of student type. If line entry is student, this can be blank.  If faculty, this should be "Faculty". If staff, this should be "Staff".	NA
Email Address	Student, faculty, staff member's university email address.	255
Billing Account Number	The account number that will be used when charging a student's account, typically the customer ID number.	NA
Ship to Name	Customer's first & last name. If faculty or staff, this field can be blank.	NA
Ship to Address	Customer's shipping address. If faculty or staff, this field can be blank.	128
Ship to City	Customer's shipping city. If faculty or staff, this field can be blank.	64
Ship to State	Customer's shipping state abbreviation. If faculty or staff, this field can be blank.	2
Ship to Postal Code	Customer's shipping postal code. If faculty or staff, this field can be blank.	16
Ship to Country	Customer's shipping country. If faculty or staff, this field can be blank.	32
Phone	Customer's shipping phone. If faculty or staff, this field can be blank.	17
Dorm Info	This will be the student's dorm name and room number. If off campus, put "Off Campus". If students have mailboxes on campus AND this information is available in the institutions system, the Mailbox # could be passed as a prefix in the Dorm Info field in combination with the Dorm Room information. Example: If my mailbox number is 324 and I live in Jones Hall room 223, my dorm info field would read: Box 324 / Jones 223.  Department - This could be passed in the Dorm Info field to indicate what department a faculty or staff is associated with. We build delivery routes internally in our Logistics software based on this variable if available to us.	NA
Notes	Mail Stop - One of our partners designates an actual "Mail Stop" associated with each individual which is distinctive from the department. If this is available, it can be passed in the Notes field.  If not, this field should be left blank unless instructed to do otherwise.	NA

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# **SLINGSHOT TO INSTITUTION**

When account charges are made by students, faculty, or departments with Slingshot, these transactions need to be passed back into the school's ERP system. Slingshot has a standard export that can be provided on a daily, weekly, or monthly basis. The export can be transferred using the Secure FTP server or can be provided via an automated email.

### **AR EXPORT FILE**

An AR export provides a line item per each transaction and can be provided either daily, weekly, or monthly. The file name will also contain a

Account Group Code	This is the AR account group code that refers to the account group to which the system associates a specific charge. This offers the ability in reporting for charges to be manipulated and sorted for easy organization.
Account Group Name	This is the description of the account group code.
Customer ID Number	This is the customer's billing account number that is either passed in the <b>Customer</b> import file or manually added for departments.
Customer Name	This is the name of the customer and can be split into two separate columns.  Example: First Name/Last Name
Transaction Date	This is the date that the transaction occurred.
Transaction Number	This is Slingshot's transaction/order number.
Total	This is the total amount charged.

#### Note:

These are the typical fields passed but can be customized per institution. Slingshot can discuss other available fields in the onboarding process.

### **AUTOMATED FILE TRANSFER TO SLINGSHOT**

Slingshot uses an SFTP server to ensure an Institution's ability to securely transfer data files that will be loaded into the Slingshot systems. The goal of this process is to create as much automation as possible.

While there are many ways to script the transfer process using SFTP or SCP applications, the preferred method of connecting to the SFTP server will be with a username and SSH keys. See instruction below if you need assistance with generating SSH keys.

Slingshot will need the **public** key file from the Institution's server to allow access to Slingshot's SFTP server. Once username and keys have been established, Slingshot will provide the username and details needed to access and connect to Slingshot's server.

The directory structure will be set up three directories:

- The **test\_files directory** is used in the onboarding process to test initial files or any future file adjustments or changes.
- The data\_files directory is where the three (Customer, Catalog, Enrollment) data files will need to be placed once automation is live.
- The **charge\_files directory** is where the AR files will be retrieved by the institution.

# How to Generate a SSH Key on Windows using PuTTY

You can generate an SSH key on Windows using the PuTTY SSH client. You can download PuTTY for free from

http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html.

To generate a key with PuTTY, you should:

- 1. Download and start the puttygen.exe generator.
- 2. In the "Parameters" section choose RSA and press Generate.
- Move your mouse randomly in the small screen in order to generate the key pairs.
- 4. Enter a key comment, which will identify the key (useful when you use several SSH keys).
- 5. Click "Save private key" to save your private key.
- 6. Click "Save public key" to save your public key.

#### **How to Generate a SSH Key on Linux**

slingshotedu.com

1500 S Western Ave, Marion, IN 46953