Uploading Bills, Downloading Payments, and Automating the Process

This document describes uploading bills to Xpress-pay, downloading payments. There is no requirement for a bill to uploaded prior to payment because Xpress-pay offers a variety of methods through which transactions can be initiated. For information on these popular alternatives, please contact our Support Department.

The payment download function is always available regardless of how a transaction was originated. This document is presented in two sections, the first for uploading bills to Xpress-pay and the second for downloading payments.

Email notifications: Xpress-pay can email a notice in response to an upload. This feature provides significant convenience to the consumer and is highly effective in stimulating payment activity. We strongly encourage you to provide an email address with uploaded bills.

Section 1: Uploading bills

Bill are uploaded to allow consumers to provide criteria used to locate and pay specific bills. Multiple search fields can presented and each can be optional or required. Where required, a partial value or exact match can be required.

Bills matching the visitor's criteria are then presented for review and selection. Note that upon presentation, additional information may be displayed. For example, search criteria might require an account number and last name, but displayed bills matching the criteria might also reveal the full name and service address in addition to the amount due. This allows privacy in searching but enhances consumer confidence in selecting bills for payment.

Prior to uploading bills, the payment type and file format must be defined to Xpress-pay by our Support Department. Your file can be a fixed-format ASCII text file or an Excel spreadsheet (currently **.**xls only). There must be one record or line for each bill. Extraneous lines may be included provided that reliable criteria exists to exclude them, such as an asterisk in position one.

File uploads are accomplished in one of two ways:

- Import bills: This option is invoked from the Xpress-pay administrative menu. Use your login and password to access this function.

- Automated FTP: You can establish a schedule within your own environment to submit requests to upload or download files from Xpress-pay as needed. For more information, see the end of this document or the PDF entitled *Automated Uploads & Downloads* on our *Contact us/Merchant Support* page

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Field list for uploading bills

- **Bill date:** Optional. Billing date and the basis for interest calculation. If omitted here, it must be provided when uploading bills.

- **Unique ID (entity):** Optional. Used to uniquely identify the entity being billed. This facilitates subsequent email notifications or associations with prerequisite outstanding bills (contact our Support Team for additional information).

- **Bill amount:** Required. The amount of the bill or, if negative, the credit. This field can be in multiple locations within a record and is thus cumulative. Amounts in this field are subject to the interest formula you may define for each bill type.

- **Bill amount (no interest):** Alternative to **"Bill amount"**; cumulative. Xpress-pay interest formulas will not be applied to these bill amounts.

- **Bill credit:** Optional; cumulative. The amount of credit to be applied to (subtracted from) the bill amount; cumulative. Not applicable to "Bill amount (no interest)".

- **Interest:** Optional; cumulative. The amount of interest to be presented with the bill (negates use of Xpress-pay interest formulas).

- **Interest credit:** Optional; cumulative. The amount of credit to be subtracted from the interest.

- **Payment type restriction:** C=cards only, E=eChecks only. Though you may elect to accept both cards and eChecks, this feature allows restriction of payment types for specific bills. For example, if a customer has bounced checks, you may wish to specify "C" on all bills you upload for that customer to restrict them to credit/debit card payments only.

- **Locators 1-5:** Five 250-character captioned flexible data fields are available. Contents can be concatenated (ex. first name+space+last name). Each can be a required or optional search field, and exact matches can be required. A locator can be flagged as hidden, allowing you to associate additional information with a bill without revealing it to the visitor.

- **Bill image filename (PDF, JPG, etc.):** Optional. Provide (only) the filename+extension here. Your server's URL/foldername will be included in the Xpress-pay configuration for the payment type.

- **Email address:** Providing an email address allows us to send email notifications upon bill upload. Recipients need only click the button to retrieve matching bills. Email notifications significantly elevate consumer convenience and payment activity and is **highly** recommended.

Uploading Bills and Credits

Records with an amount due of $0 will be ignored. Records with amounts due > $0 are bills and records with amounts due < $0 (a minus sign preceding the amount) are considered to be credits.

Visitors will provide criteria to search for bills and credits. All records matching the criteria will be displayed, and the visitor may then select which bills to pay or credits to apply. If credits are found and selected, they are applied against selected bills, but to proceed to checkout, the net amount due resulting from their selections must be greater than $0.

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Data Filtration

The upload function allows the inclusion or exclusion of records based on limited criteria. If these filters are omitted, all records will be imported (provided they have a net amount due < or > $0).

Each filter is independent of any other filter line, that is if you specify to include only if position 278, length 1 = C and also specify to include only if position 278, length 1 = R, no records will be imported! That's because it is impossible for position 278 to be both a C and an R, so one of the filters will fail.

You can also use filtration to simplify exportation from your system. As an example, for a property management system, you could still export all bills for both security deposits and rent to a single file. When defining security deposits, use an include filter in its bill type to include only if the position containing the type is "S". When defining rent, use an include filter in its bill type to include only if the bill type is "R". Use of this technique vastly reduces the effort required to import similar bills that would otherwise be transmitted in separate files.

If your exporter is incapable of exporting only outstanding bills, perhaps there is a way of using the filters circumvent to the shortcoming. Maybe you can bypass paid records, such as a "P" in position 302, or include only if payment date is = 00/00/0000. We invite you to discuss this with our Support Team prior to finalizing the design of your extract program.

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Section 2: Downloading Payments

Xpress-pay records a history record for all payments regardless of their origin. The Administrative Menu allow you to produce a report, and a download icon allows you to capture a file of those payments. See Section 3 for information on the automated FTP upload/download.

In the Payment Detail Report, the icon at the upper right will start a download of the payments being viewed. The downloaded fixed-format ASCII text file will be in the following format:

Payment File Format

State: 1-20

Merchant name: 21-70

Bill type: 71-120

Entity identifier: 121-170

Bill date: 171-178 as MMDDYYYY

Payment date: 179-186 as MMDDYYYY

Payment type: 187-192 as "card" or "echeck"

Bill amount: 193-204 as 9(10)V99

Interest: 205-216 as 9(10)V99

Client revenue: 217-228 as 9(10)V99: Amount realized by client, i.e. Bill amount+ Interest

Merchant fee: 229-237 as 9(7)V99: Estimated amount due to merchant provider as a result of this transaction (not applicable in some scenarios)

Site fee: 238-246 as 9(7)V99: Amount due to Systems East, Inc

Payment total: 247-258 as 9(10)V99: Grand total of the amount paid by the visitor

Transaction ID: 259-270 as x(12)

Locator 1: 271-320 as x(50)

Locator 2: 321-370 as x(50) Note: For the five locators, only the first fifty of the

Locator 3: 371-420 as x(50)   possible two hundred characters are echoed

Locator 4: 421-470 as x(50)   in the payment file

Locator 5: 471-520 as x(50)

Payer's information:

- **Email:** 521-570 as x(50)
- **Payment time:** 571-578 as hh:mm:ss
- **First name:** 579-628 as x(50)
- **Last name:** 629-678 as x(50)
- **Address:** 679-778 as x(100)
- **City:** 779-808 as x(30)
- **State:** 809-838 as x(30)
- **Zip code:** 839-848 as x(10)

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Notes

The representation "9(10)V99" above is a COBOL-style description of the field's fixed-length internal format. In the first example immediately below, it means ten dollar digits followed by the two digits representing the cents. For example:

- For a 9(10)V99 format, $1,234.98 would be 000000123498
- For a 9(7)V99 format, $1,234.98 would be 000123498.

As an alternative to downloading a fixed format ASCII payment file as described above, the administrative menu's Payment Detail Report allows you to download payments as a CSV file. CSV files may be opened directly by Microsoft Excel. If the CSV download option is used, the first row will contain column headers and each additional row will contain one payment record.

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Section 3: Automated Uploading and Downloading (FTP/sFTP)

Xpress-pay supports FTP and sFTP to allow unattended uploading of bill files and downloading of payment files. These functions are initiated through separate API's described in this section.

Automating the process allows the payments to be retrieved and processed at the end of each day without staff intervention. This function requires that you establish an FTP location as a source or target for files to be exchanged.

Note: The automated process supports only fixed format ASCII text files. It does not currently support Excel spreadsheet files.

The FTP service allows the exchange of billing and payment files between Xpress-pay and your FTP site. Whether uploading billing information to Xpress-pay or downloading payment files from Xpress-pay, your FTP site will be used for the exchange. Using the FTP service allows you to:

- Download payments: Select a date/time range to download as a fixed format ASCII text file, then process these payments against your internal accounts receivable system.

- Upload (post) a fixed format ASCII text file of bills: Allows your customers to search, select, and pay bills.

- Either or both are typically scheduled to automate the process, eliminating staff intervention.

These functions operate independently, and you can use either or both. The hyperlink or HTML Post that initiates the service must contain all necessary information for Xpress-pay to access your FTP site as needed to exchange the targeted information.

Uploading (posting) bills

Sample URL string to upload a fixed format ASCII text file of bills from your FTP site to Xpress-pay:

https://www.xpress-pay.com/ws/service.asmx/PickupImportFileV4?ftptype=*[ftptype]*&mode=*[mode]*&filename=*[filename]*.txt&hostname=*[hostname]*&ftpfolder=*[ftpfolder]*&username=*[username]*&password=*[password]*&fingerprint=*[fingerprint]*&municipality=*[municipality]*&state=*[state]*&emailto=*[emailto]*&billingdate=*[billingdate]*&sendemail=*[sendemail]*&billtypes=*[billtypes]*

- **ftptype**: Specify ftp or sftp.

- **mode**: If ftptype=ftp, you must indicate active or passive, otherwise specify the parameter but omit the value.

- **filename**: The name of the bill file that is to be uploaded, including the file extension (ex. "Bills.txt")

- **hostname**: Server URL or IP address of your FTP site (the file source).

- **ftpfolder**: The folder location of the file on your FTP server.

- **username, password**: Credentials to access the source folder on your FTP server.

- **fingerprint**: SSH/SFTP key fingerprint, an security feature for authenticating user and client application. For details, see http://www.jscape.com/blog/ssh-key-fingerprint. If &ftptype=ftp, submit this parameter with no value.

- **municipality:** This is your company or municipality name as provided by Xpress-pay support.

- **state:** The state as you are listed in Xpress-pay. Must be fully spelled out; use + for a space.

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- **emailto**: The email address of the person to receive the upload record count and total. Multiple recipients can be specified by separating them with a comma (comma only; no space).

- **billingdate**: The billing date to be associated withal uploaded bills. Note that If the billing date is included with each record in the billing file, our Support Group will configure Xpress-pay to use that date for each invoice posted. In that case, you must still include the "&billingdate=" but it would not be followed by a date.

- **sendemail:** If you wish to send courtesy emails to those for whom we have an email on file associated with the key information for an uploaded bill, specify 1 here, otherwise use 0.

- **billtypes**: The payment type identifier established by Xpress-pay for each payment type. To upload multiple payment types in a single pass, separate them with a comma (no spaces) such as 6530,6721.

Downloading payments

Sample URL string to download a fixed format ASCII text file of payments from Xpress-pay to your FTP site:

https://www.xpress-pay.com/ws/payments.asmx/PushPaymentFileV2?ftptype=*[ftptype]*&mode=*[mode]*&fingerprint=*[fingerprint]*&startdate=*[startdate]*&starttime=*[starttime]*&enddate=*[enddate]*&endtime=*[endtime]*&hostname=*[hostname]*&username=*[username]*&password=*[password]*&ftpfolder=*[ftpfolder]*&filename=*[filename]*.txt&billtypepk=*[billtype]*

- **ftptype**: Specify ftp or sftp.

- **mode**: If ftptype=ftp, you must indicate active or passive, otherwise specify the parameter but omit the value.

- **fingerprint**: SSH/SFTP key fingerprint, an important security feature that helps users and client applications authenticate SSH/SFTP servers. For details, see http://www.jscape.com/blog/ssh-key-fingerprint. If &ftptype=ftp, submit this parameter with no value.

- **startdate, enddate:** Specifies the date range to include. Use MM/DD/YYYY format.

- **starttime, endtime:** Specifies the time range to include (HH:MM:SS [AM|PM]. For an entire day, use 00:00:00%20AM through 11:59:59%20PM where %20 must be used to represent a space.

- **hostname**: Server URL or IP address of your FTP site (the destination server).

- **username, password**: Credentials to access your FTP site.

- **ftpfolder**: The destination folder on your FTP server.

- **filename**: The name of the bill file that is to be downloaded, including the file extension (ex. "Payments.txt"). We recommend the name be unique such as payments-2017-05-08.txt to prevent inadvertent overwriting.

- **billtypepk**: The payment types to download. The identifier is available from the Xpress-pay Support Group.

We remain available to assist you if and as needed. In the meantime, thank you for selecting Xpress-pay as your ePayment partner.

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