Uploading Bills, Downloading Payments, and Automating the Process

This document describes uploading bills to Xpress-pay, downloading payments, and downloading recurring payment information. There is no requirement for a bill to be 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 originated. Two types of downloads are available… payment history and recurring payment enrollee information.

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

Section 1: Uploading bills

Bills are uploaded to allow consumers to search for and pay specific bills. You decide which fields are to be used for search criteria and whether they are optional or required. Where required, you decide whether a partial or exact match is required.

Bills matching the visitor's criteria are then displayed 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 Team. Your file can be a fixed-format ASCII text file, an Excel spreadsheet, or a CSV (comma separated values) file. There must be one record or line for each bill. Extraneous lines may be included provided that reliable criteria exist 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: We can establish a schedule to upload bills or download payment files as needed. Our Support Group will configure Xpress-pay to align with your file format and schedule. For more information, see the end of this document.

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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*]. Do not include the *URL/foldername* as this will be included in the Xpress-pay configuration for the payment type. Industry security requires that the *URL/foldername* be a static value.

- **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. As a result, they are highly recommended. Note that you can restrict emailing to one or two specific days per month. This allows you to upload more frequently without spamming your clients. Please discuss this option with our Support Group.

Uploading Bills and Credits

Records with amounts due > $0 are uploaded as bills and records with amounts due < $0 (a minus sign preceding the amount) are uploaded as credits. A visitor can select credits to be applied to bills they select for payment, but the total of credits cannot exceed the total of the selected bills.

Records with an amount due of $0 will be ignored unless you elect to enable the "Allow $0 bills" option. Normally, bills with no balance are deleted, but they can be uploaded (or retained if fully paid) if you

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wish to allow customers to make a payment even if no balance is due. This is particularly useful for vacationers who might want to pay in advance before a prolonged absence. Your Xpress-pay configuration must allow visitors to increase the payment amount and your internal A/R system must be able to maintain credit balances.

Visitors will provide criteria to search for bills and credits you have uploaded. All records matching their criteria will be displayed, and the visitor may then select which bills to pay or credits to apply.

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.

Test Payments

Testing protocols typically include making test payments for the bills you have uploaded. The hyperlinks to initiate these payments will be provided by our Support Department, but once at the checkout screen, you may wish to use test cards instead of actual cards. Note that regardless of the environment you use, all aspects of Xpress-pay are PCI DSS Level One Certified, including IVR.

To place a test transaction, you can use real cards or test cards, but they must be valid card numbers. You cannot simply use a random sixteen-digit number. We are required to pass all card numbers through a validation process, and random numbers are generally rejected.

For your convenience, our checkout process recognizes test card numbers starting with 41111 or 54545. Upon recognizing either, the remainder of the card number will be automatically completed. If you wish to use other test cards, they are readily available on the Internet by searching for "test credit card numbers".

Note: PCI DSS prohibits us from distributing complete card numbers in any form.

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Section 2: Downloading Payments

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

As an alternative to downloading a payment file as described above, the administrative menu's Payment Detail Report allows you to download payments as a CSV, MS-Excel (.xls), ASCII fixed format text file (.txt), or PDF. Note that 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.

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.

In the Payment Detail Report, the icon at the upper right will start a download of the payments being viewed.

Payment File Format (standard)

- **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: Bill amount + Interest (sum of the prior two fields; this field is blank if file is generated by the Xpress-pay Report Writer or Scheduler)
- **Merchant fee:** 229-237 as 9(7)V99: Estimated provider transaction fee (not always applicable)
- **Site fee:** 238-246 as 9(7)V99: Xpress-pay fee
- **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)   Note: For these five flexible data fields, only the first 50 of the
- **Locator 2:** 321-370 as x(50)   250 characters are echoed in the payment file

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- **Locator 3:** 371-420 as x(50)
- **Locator 4:** 421-470 as x(50)
- **Locator 5:** 471-520 as x(50)
- **Payer's Email:** 521-570 as x(50)
- **Payment time:** 571-578 as hh:mm:ss
- **Payer's first name:** 579-628 as x(50)
- **Payer's last name:** 629-678 as x(50)
- **Payer's address:** 679-778 as x(100)
- **Payer's city:** 779-808 as x(30)
- **Payer's state:** 809-838 as x(30)
- **Payer's zip code:** 839-848 as x(10)

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

Xpress-pay supports scheduled FTP and sFTP (collectively referred to as FTP) for unattended uploading of individual billing (accounts receivable) records and downloading of payments. FTP can be initiated by way of a fixed schedule established by our Support Group or, if a schedule cannot accommodate your requirements, dynamically through an API.

Automating (scheduling) these processes allows the payments to be retrieved and processed at the end of each day without intervention by your office or IT staff. To establish a scheduled upload of bills and or download of payments, contact your Xpress-pay Project Liaison at the number below. For both methods:

- **Uploading outstanding bills:** You will upload (post) a file of your outstanding bill information allowing your customers to search, select, and pay.

- **Payment downloads:** You may also request a file of payments to be downloaded. This is most commonly used to perform a daily download of payments from "Yesterday" shortly after midnight. Other options are available such as last twenty-four hours, last week, month-to-date, etc. If you have a need to select unique date/time ranges, please discuss the API with your Project Liaison. The API parameters are below.

- These functions are scheduled individually, so your project can take advantage of either or both. Also, you can use the API for one and the scheduler for the other.

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Uploading (posting) bills

This section provides guidance for using the API to upload bills to Xpress-pay: If you use the Xpress-pay administrative menu for importing on a fixed schedule, ignore this information.

Bills can be imported to Xpress-pay from your FTP site via a HTTP POST request. You can elect to transfer the file using FTP or SFTP and can define a passive or active connection. Keep in mind these requests are submitted to the Xpress-pay API, which will then establish the connection to your FTP site (using the specifications you define in the request), temporarily store the transferred file in Xpress-pay, and then will immediately import or schedule an import for the file. The Xpress-pay API import endpoint is throttled to 1 request every 15 minutes.

Sample POST request:

```
POST /v1/report HTTP/1.1
Host: api.xpress-pay.com
organizationId: 7
Content-Type: application/json
Authorization: Bearer yourProvidedBearerTokenHere
Content-Length: 579
{
    "section": "bill",
    "paymentTypes": [
        {
            "id": 13310,
            "billDate": "1/8/2024",
            "sendEmail": true
        }
    ],
    "importNow": true,
    "importDateTime": null,
    "appendReplace": "replaceRecords",
    "emailResults": ["email@yourdomain.com"],
    "fileName": "bills.txt",
    "ftp": {
        "isSecure": true,
        "isPassiveMode": false,
        "hostname": "yourftpsite.com",
        "username": "YourFtpUser",
        "password": "madeUpP@$$word@",
        "port": 22,
        "directory": "files/"
    }
}
```

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The POST request header must contain standard key values in addition to these required key value pairs:

- An authorization bearer token (provided by your Project Liaison)
- organizationId (numeric value provided by your Project Liaison)

URL to invoke the FTP transfer and import of bills from your site:

https://api.xpress-pay.com/v1/import

- **section:** Set value of *"bill"*.
- **paymentTypes:** Array of JSON object(s) defining which payment type(s) the file should import the bills to. Each JSON object will contain the below subsets.
    - o **id:** Numeric value of the payment type (provided by your Project Liaison).
    - o **billDate:** Date defining the bill date for all bills being uploaded. Setting a value here will overwrite a predefined bill date in the import file. Leave blank if you already define and prefer bill dates from your bills file. Use the format of MM-DD-YYYY.
- **sendEmail:** Set to *true* if you want bill notifications sent out to your customers. Set to *false* otherwise. Note: this feature requires emails to be specified in the imported file.
- **importNow:** Set to *true* if you want to immediately que the import. Set to *false* if you want to schedule the import date and time (see below **importDateTime**).
- **importDateTime:** Used only when **importNow** is set to *false* and defines the date and time when the bills should be posted. The FTP transfer will occur immediately upon sending the POST request, the file will be stored in a standby state, it will then import the bills contained in the file at the date and time specified. Use the format of MM-DD-YYYY HH:MM:SS.
- **appendReplace:** This defines whether the import should append pre-existing bills or replace pre-existing bills. Set to *append* to append bills or *replace* for replacing.
- **emailResults:** An array containing the email address the import results should be sent to.
- **filename:** Name of the bills file that exists on your FTP site for import usage. Specify the exact filename including its file extension.
- **ftp:** Contains subset of key value pairs specifying the parameters for the FTP connection. These parameters are dependent on how you have configured your FTP site.
    - o **isSecure:** Set to *true* for SFTP or *false* for FTP.
    - o **isPassiveMode:** Set to *true* for passive connection or *false* for active connection.
    - o **hostname:** Host name of your FTP site.
    - o **username:** Username for accessing your FTP site.
    - o **password:** Password for accessing your FTP site.
    - o **port:** Port number used by your FTP service.
    - o **directory:** Specify the path to the bills file on your FTP site. Leave blank if it resides in a root directory.

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Downloading payments

This section provides guidance for using the API to download payments from Xpress-pay: If you use the Xpress-pay administrative menu for downloading on a fixed schedule, ignore this information.

Payment records can be downloaded to your FTP site via a HTTP POST request. The request can also be used to receive an emailed copy of the same file.

Sample POST request:

```
POST /v1/report HTTP/1.1
Host: api.xpress-pay.com
organizationId: 7
Content-Type: application/json
Authorization: Bearer yourProvidedBearerTokenHere
Content-Length: 708
{
    "reportId": "b9050d16e5db11ec904f0800270695ea",
    "templateId": "aa35a82cffe311edb83e005056a644f5",
    "parameters": {
        "organizationName": 7,
        "paymentTypeId": [18,19],
        "paymentDateStart": "2023-12-01",
        "paymentDateEnd": "2023-12-27",
        "paymentMethodType": ["CreditCard","Check"]
    },
    "method": "ftp",
    "settings": {
        "ftp": {
            "hostname": "yourftpsite.com",
            "port": 21,
            "username": "YourFtpUser",
            "password": "madeUpP@$$word",
            "dir": "reports/sub/directory/",
            "isSecure": true,
            "isPassiveMode": true,
            "filename": "payment-report",
            "appendDate": "YmdHis"
        }
    }
}
```

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The POST request header must contain standard key values in addition to these required key value pairs:

- An authorization bearer token (provided by your Project Liaison)

- organizationId (numeric value provided by your Project Liaison)

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

https://api.xpress-pay.com/v1/report

- **reportId:** Alphanumeric GUID that identifies the report you are requesting. This will be provided by your Project Liaison.

- **templateId:** Alphanumeric GUID which identifies the ASCII text file and is provided by your Project Liaison.

- **parameters:** This contains a subset of key value pairs to identify the organization, payment type, and date range for the requested report file.

    o **organizationName:** Numeric value equal to the organizationId.

    o **paymentTypeId:** Array containing numeric value(s) of the payment type(s) (provided by your Project Liaison).

    o **paymentDateStart:** This can either be a preset value or a start date in the format of YYYY-MM-DD. Preset values available are *last15Minutes, last30Minutes, last45Minutes, lastHour*, or *last24Hours*.

    o **paymentDateEnd:** This is only used when a start date is used in the paymentDateStart parameter. This must also be in the format of YYYY-MM-DD.

    o **paymentMethodType:** Used for filtering payment report results by the method of payment used. Available values are *CreditCard* and/or *Check*.

- **method:** This defines how the file should be delivered. Available values are *ftp, email,* or *both*.

- **settings:** Contains subsets of key value pairs to define where and how the files should be sent. These will be dependent on the delivery method defined in the parameter above (**method**).

    For FTP: You must set the key for the below subset as *ftp*.

    o **hostname:** Host name of your FTP site (ex. yourftpsite.com).

    o **port:** Port number used by your FTP service.

    o **username:** Username for your FTP site.

    o **password:** Password for your FTP site.

    o **dir:** Specify the directory the file should be placed in. Leave value blank if it should be placed in the root directory.

    o **isSecure:** Defines if the connection is FTP or sFTP. Values are either *true* (for sFTP) or *false* (for FTP).

    o **isPassiveMode:** Defines if the established connection is to use passive mode. Values are either *true* or *false*.

    o **filename:** Use this to set the name on the file that will be delivered.

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- **appendDate:** Optional field for use when you want a date stamp appended to the end of the filename. The format follows PHP datetime.

   *For referencing PHP datetime: https://www.php.net/manual/en/datetime.format.php

   Examples: Ymd = 2024115

   YmdHis = 20241150805

   YMd = 2024Jan15

   YMD = 2024JanMon

   Y-M-d = 2024-01-15

   F = January

   FY = January2024

For Email: You must set the key for the below subset as *email.*

- **emailTo:** Array containing the email address for the primary recipient.

   Example: ["youremail@domain.com"]
- **emailCc:** Array containing the email address for the carbon copy recipient.
- **emailBcc:** Array containing the email address for the blind carbon copy recipient.
- **subject:** Used to set the subject line in the email.
- **message:** Used to set the body of the email message.
- **filename:** Use this to set the name on the file that will be delivered.
- **appendDate:** Optional field for use when you want a date stamp appended to the end of the filename. The format follows PHP datetime. See above section on FTP for details.

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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