SyntaxSofts

SimplePay - Information Manual

Document Version History

Version	Comment	Date	Author
1.0	Initial Draft	01-23-2019	SyntaxSofts Solutions
1.1	Version 1.0 Final Review	09-26-2019	SyntaxSofts Solutions

Table of Contents

Introduction

What is SimplePay?

“SimplePay” is an application developed **100% native to the Force.com platform** to provide seamless integration for payment processing from within the Salesforce org where the application is installed.

Payment Processing is a high-risk implementation involved in many projects developed on the Force.com platform. Some of the most common applications of Payment Processing developed on the Force.com platform include e-Commerce Sites, User Registration and Subscription, Event Management and Ticketing, NGOs and many more. Integrating third-party payment processors into the existing application involves extensive architecture designing and solutioning, and can comprise over hundreds of development hours.

SimplePay allows the users to **quickly and safely integrate third-party payment processors** within their application with just a few configuration steps. Another factor to be considered for integrating payment processing is the safety and reliability of the transactions performed. SimplePay overcomes this problem by ensuring that the complete architecture is **PCI compatible**, which means that not only the transactions are performed securely, but also the user information is stored according to the industry standards.

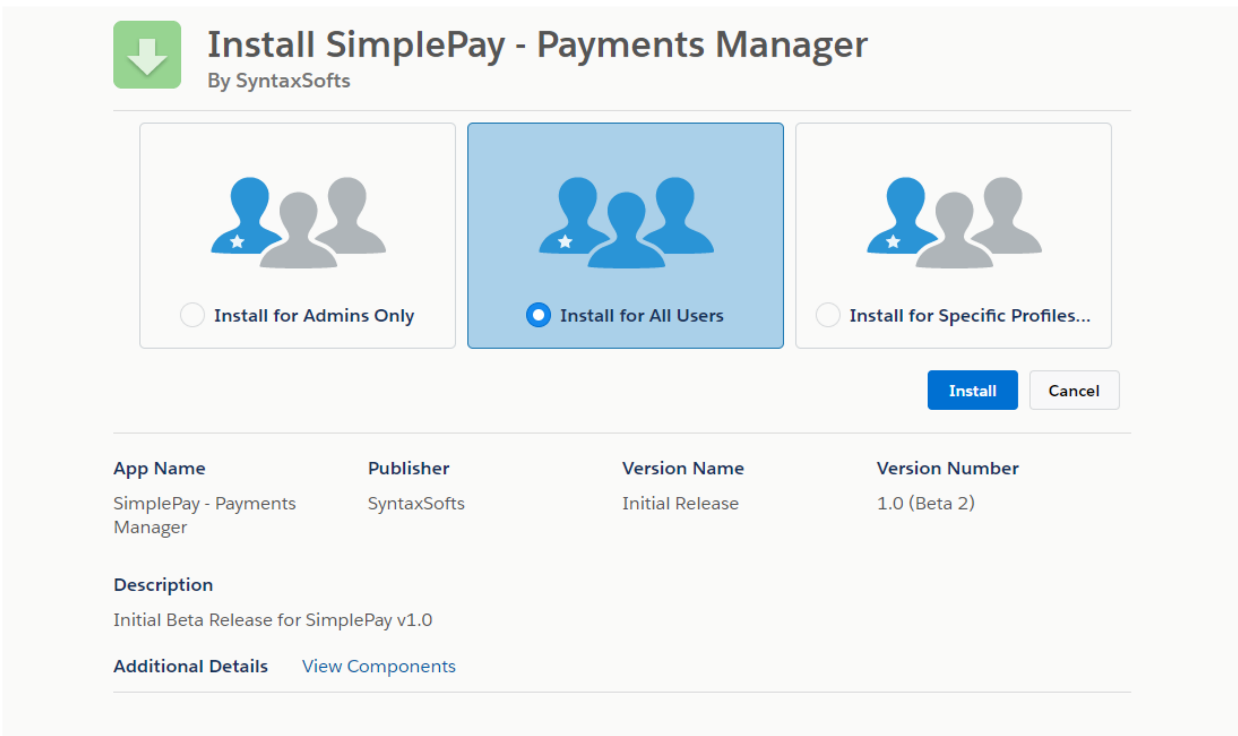
What is this document about?

This document is an information manual that enables users to install SimplePay into their existing implementation, and provides the instructions to set-up the application and start processing payments. It also provides a brief overview of the features that SimplePay offers and step by step guidelines for how to use these features. Additionally, the document also addresses ways to reach out to our customer support team if any further assistance is required.

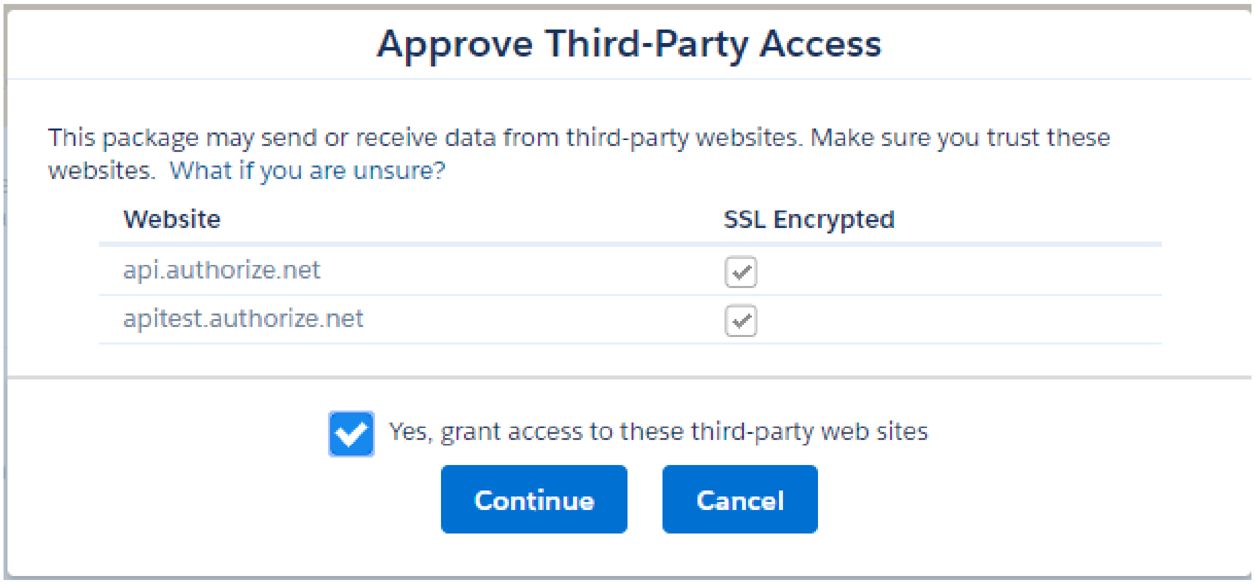
Installing and Configuring SimplePay

Installing SimplePay

Once you have visited the AppExchange page for SimplePay and have opted to install the package, you would be redirected to the installation page for SimplePay. This page would allow you to select the type of installation and the intended audience for the application. The recommended audience is to select “Install for All Users”. Once done, click on the Install button to begin the installation process.



A prompt would appear that asks you to approve third-party access to some sites. These sites are required to ensure that payment data can be sent to the payment processors. Click on “Yes, grant access to these third-party web sites” and click on the Continue button.



It might happen that Salesforce refreshes the page saying that the package is taking too long to install. In such cases, you would be receiving an email once the installation is done.

Objects Involved

SimplePay makes use of the following objects, already existing on the Force.com platform and included as a part of the package in order to start processing payments -

The Account Object

The Account Object is used as a starting point for all the payment transactions to be processed for a business or a corporation, as this object is used to store information for all the businesses in the system.

SimplePay uses the Account Name, Shipping Address and Billing Address fields on Account and sends it to the payment processor for Card Holder/Account Holder Name (depending on the type of transaction, Charge Card or EFT), Shipping Address and Billing Address information respectively. The address fields are used only when the “Use Account Address for Processing?” checkbox is checked on the Payment Type record used for processing the payment. Otherwise the address details provided on the Payment Type itself are used.

All the payments processed for a particular Account can be found either by using the “Payments” related list present on the Account Page Layout. Similarly, the “Payments by Businesses per Month” and “Recurring Payments by Businesses” reports can be used to view the details of all the payments summarized by the Accounts present in the system.

The Contact Object

Similar to a business, SimplePay also allows processing of payments for an individual. The Contact Object is used as a starting point for all the payment transactions to be processed for an individual.

SimplePay uses the Contact Name, Mailing Address and the Other Address fields on the Contact records and sends it to the payment processor for the payee information. The address fields on the Contact Object are used only when the “Use Contact Address for Processing?” checkbox is checked on the Payment Type record used for processing the payment. Otherwise the address details provided on the Payment Type record itself are used.

All the payments processed for a particular Contact can be found either by using the “Payments” related list present on the Contact Page Layout. Similarly, the “Payments by Individuals per Month” and “Recurring Payments by Individuals” reports can be used to view the details of all the payments summarized by the Contacts present in the system.

The Configuration Object

The Configuration Object is a critical part of the SimplePay ecosystem. This object stores all the important information related to the payment processor configurations in the system. Any payment processor to be configured in the system is to be stored in the Configuration Object. Since this is a data-critical object, SimplePay provides an interactive user interface to Add, Edit or Delete a payment processor configuration. The interface can be accessed easily by just clicking on the “Configure Processors” tab.

Note: Users are advised not to manually update the details in these records as it might lead to inconsistent behavior and/or even failure in payment processing. Kindly refer to the “Managing Payment Processor Configurations” section of this information manual to understand how to use the Configuration Object.

Also, it is advised that the access to this object and its records be provided only to authorized users as it might expose information such as the payment processor account credentials.

The Payment Type Object

The Payment Type Object is used to store the Credit/Charge Card or the Bank Account information for all the customers (Businesses and Individuals) in the system. Credit/Charge Card and Bank Account records are separated by leveraging the two record types “Credit/Charge Card” and “EFT” present in the system. Each record type has its own predefined page layout that ensures that only the required information is gathered from the users while entering the data.

All the Payment Type records in the system should be associated with either an Account or a Contact but not both. Additionally, the system provides ability to choose a Default Payment Type record for every Account/Contact, which will be the default choice for processing payments if no other Payment Type record is explicitly chosen.

The Payment Object

The Payment Object is used by SimplePay to process and store information about all the payments made in the system. Each Payment record should be associated with either an Account or a Contact. The amount to be charged is also stored on the same record. Once the Payment Date is elapsed, the associated Account or Contact would be charged. The response of the payment processor is also stored on the same record.
Depending on the type of charge initiated (payment or refund), the Payment record should be populated with the appropriate data. For more information on processing refunds and the required fields, refer to the "Processing Payments and Refunds" section of this document.

The Recurring Payment Object

Apart from processing single, one-time payments, SImplePay also allows users to process recurring payments on a scheduled basis. SimplePay also allows users to choose the frequency of payments, the Payment Type to be used, Configuration to be used for processing, Payment Amount and the Date on which payments would be processed. If the schedule is a weekly schedule, it also allows users to choose the day on which payments would be processed every week.
Every Recurring Payment schedule should be associated with either an Account or a Contact, once it is created, new Payment records will be created automatically and associated with the recurring payment according to the frequency of payments.

The Process Object

The Process Object is used by SimplePay to keep a track of all the payments to be processed in the background. This object stores information such as the Payment record to be processed and the type of operation to be performed. The ProcessAsyncBatch batch class uses these records to process payments in the background on a scheduled basis. For more information on the data stored in the fields for this object and processing payments in the background, refer to the "Scheduling Payment Processing" section of this document.

Customizing SimplePay Using Custom Settings

SimplePay allows users to customize the behavior of the application by tweaking the data stored as a part of custom settings. All custom settings in SimplePay are configurable either for the complete Salesforce org, or individually for profiles/users. The following section highlights the different custom settings and their significance, including the impact of changing the values of individual custom setting -

Configuration Settings

The Configuration Settings custom setting is used to configure the behavior related to the Configuration Object. The table below shows the different fields in the Configuration Settings custom setting and its uses -

Field Name	Usage	Default Value
Disable All Triggers?	Master switch to determine if all the triggers on the Configuration object should be run or not. This includes all the triggers on both Insert and Update actions.	False
Enable Configuration History?	If true, any change in a custom field on the Configuration record would result in the creation of a new history attachment on the record.	True

Payment Settings

The Payment Settings allows users to configure the behavior related to the Payments Object. Following are the different fields on the Payment Settings custom setting and their usage -

Field Name	Usage	Default Value
Disable All Triggers?	Master switch that decides if any trigger would be fired upon any action performed on a Payment record.	False
Enable Amount Rollups?	This field governs if any amount value should be rolled from Payment record to its parent Recurring Payment on performing any transaction.	True

Enable Payments?	Determines if any kind of transaction (payment/refund) should be performed or not from the application.	True

Payment Type Settings

The Payment Type Settings is used to control the behavior of the application related to the Payment Type object. The table below describes the fields present on the custom setting and their respective usage -

Field Name	Usage	Default Value
Disable All Triggers?	Master switch that decides if any trigger would be fired upon any action performed on a Payment Type record.	False
Enable Card Validation?	If checked, all credit/charge card numbers, along with other information will be validated before being saved on the Payment Type records.	True

Recurring Payment Settings

The Recurring Payment Settings custom setting determines the behavior of the application whenever an action is performed on a Recurring Payment record. Following are the fields on the custom setting and their respective usage -

Field Name	Usage	Default Value
Disable All Triggers?	Master switch that decides if any trigger would be fired upon any action performed on a Recurring Payment record.	False
Enable Payment Amount Rollup?	Determines if amounts from child Payment records would be rolled up to the parent Recurring Payment on successful/failed transactions.	True
Enable Payment Transactions Generation?	If checked, child transactions would be created on the insertion of a new Recurring Payment record.	True

Recommended Object and Field Level Security Permissions

In order to SimplePay to function as expected, all the objects and fields used for payment processing should have the correct permissions. The table below shows the recommended custom object level permissions to be applied for the intended user profiles -

Object	Permissions to be assigned for profiles
Configurations	All permissions including View All and Modify All to be given to the System Administrator/Payment Processor Configurator Profiles. All other profiles should have the Read and View All accesses only.
Payments	All permissions including View All and Modify All to be given to all the profiles except external users. External User Profiles should not have any of the permissions for this object.
Payment Types	All permissions including View All and Modify All to be given to all the profiles except external users. External User Profiles should not have any of the permissions for this object.
Processes	All permissions including View All and Modify All to be given to the System Administrator profile only. All other profiles should have the Create permission only.
Recurring Payments	All permissions including View All and Modify All to be given to all the profiles except external users. External User Profiles should not have any of the permissions for this object.

Apart from setting the object level permissions as mentioned above, field level permissions should also be set for all the objects introduced in SimplePay. All the fields across all objects should be marked as Viewable and Editable for all profiles except external users.

Recommended Page Layouts and Assignments

SimplePay has an extension package specially created for all the page layouts. This package contains all the recommended page layouts including all the fields to be displayed along with their permissions and all the custom buttons needed by the application. The link for installing this package can be achieved by contacting SimplePay support.

Getting Started

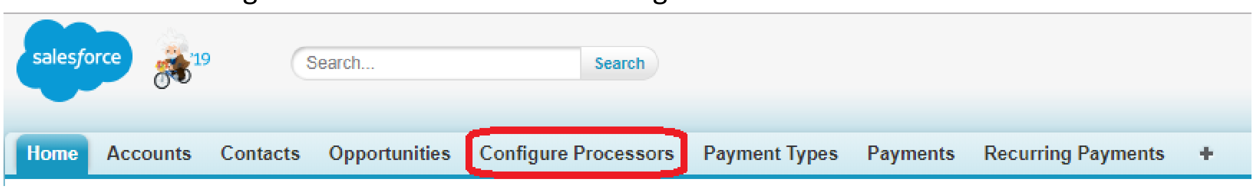
Managing Payment Processor Configurations

SimplePay has an easy to use interface that allows users to setup and manage multiple Payment Processors to be used for processing payments.

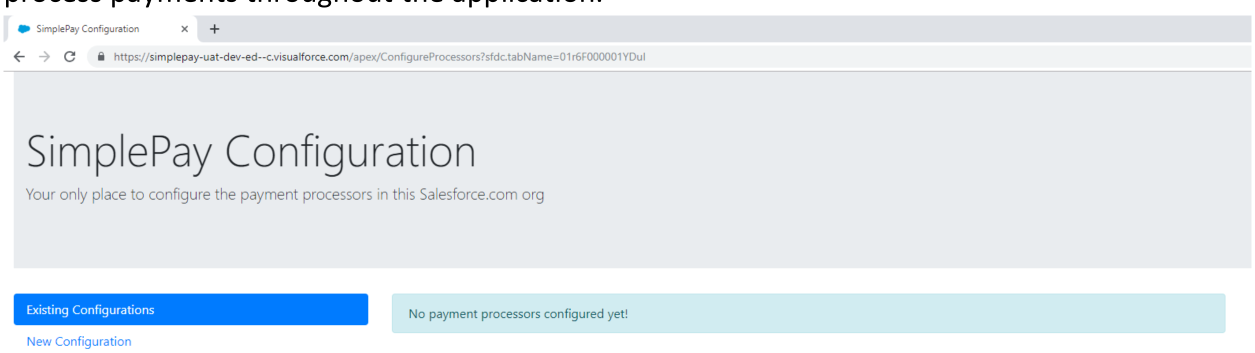
Creating a new Payment Processor Configuration

The “Configure Processors” tab can be used to navigate to the page that allows users to do so. Following are the step-by-step guidelines that will get you to easily setup a Payment Processor Configuration and use it for performing payments further in the application -

1. Click on the “Configure Processors” tab when using Salesforce Classic Interface

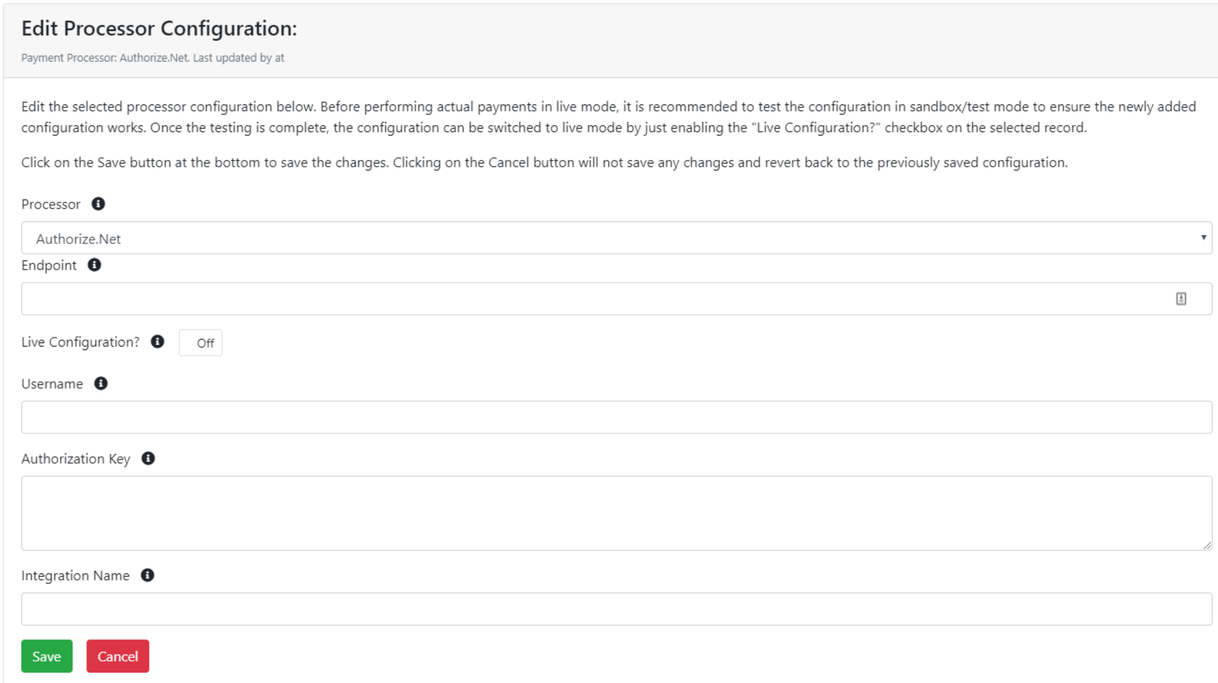


2. A new page would appear that would allow you to configure payment processors to process payments throughout the application.



3. Initially, when there are no Configuration records present in the system, the page would show a message that states “No payment processors configured yet!”. Click on the “New Configuration” tab to start creating a new Payment Processor Configuration.
4. On the next screen, select the payment processor name that you want to configure. Currently, SimplePay supports only Authorize.Net payment processor. On selecting Authorize.Net from the dropdown, the form will show only the fields that are required

for setting up Authorize.Net.

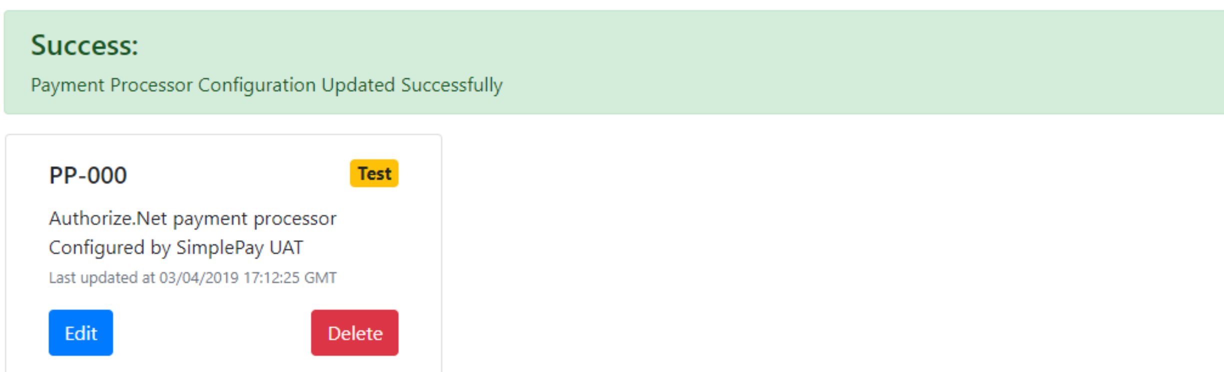


5. Enter the following information in the respective fields to proceed and save configuration for Authorize.Net payment processor

Field Name	Information to be Entered	Required?
Endpoint	Endpoint URL provided by Authorize.Net APIs. Leaving it blank will cause SimplePay to use the default Authorize.Net API Endpoint for processing payments.	No
Live Configuration?	Determines if the payment processing requests will be sent to the Live Merchant API or Sandbox API. **Note:** Choosing an incorrect value might lead to payment processing not be captured by the processor. Please contact the payment processor support team for more information on this value.	No
Username	The API Login ID provided by Authorize.Net processor for processing payments.	Yes
Authorization	Authorization Key provided by Authorize.Net	Yes

Key	processor for processing payments	
Integration Name	Name of the Apex Class that implements the payment processing logic. **Note:** Use this field only if you have implemented a custom payment processing logic and do not want to use SimplePay for processing payments. Entering an incorrect value in this field will result in an inappropriate behavior while processing payments. **It is recommended to contact SimplePay support before using this field.**	No

6. Click on the Save button to save the details. This will create a new Configuration record in the system and redirect you to the initial screen.



Editing/Deleting an Existing Payment Processor Configuration

1. To edit an existing payment processor configuration, click on the Edit button on the desired Configuration card shown on the Existing Configurations tab.
2. Note that you cannot change the payment processor while editing an existing payment processor configuration. On updating the desired values, click on the Save button to save the changes.
3. This will update the existing Configuration record and redirect you to the initial screen.
4. In order to delete an existing payment processor configuration, click on the “Delete” button on the Configuration card shown on the Existing Configurations tab.
5. A popup will be displayed on the screen that warns the implications of deleting an existing configuration. Click on the “Yes, Delete” button on the popup to completely

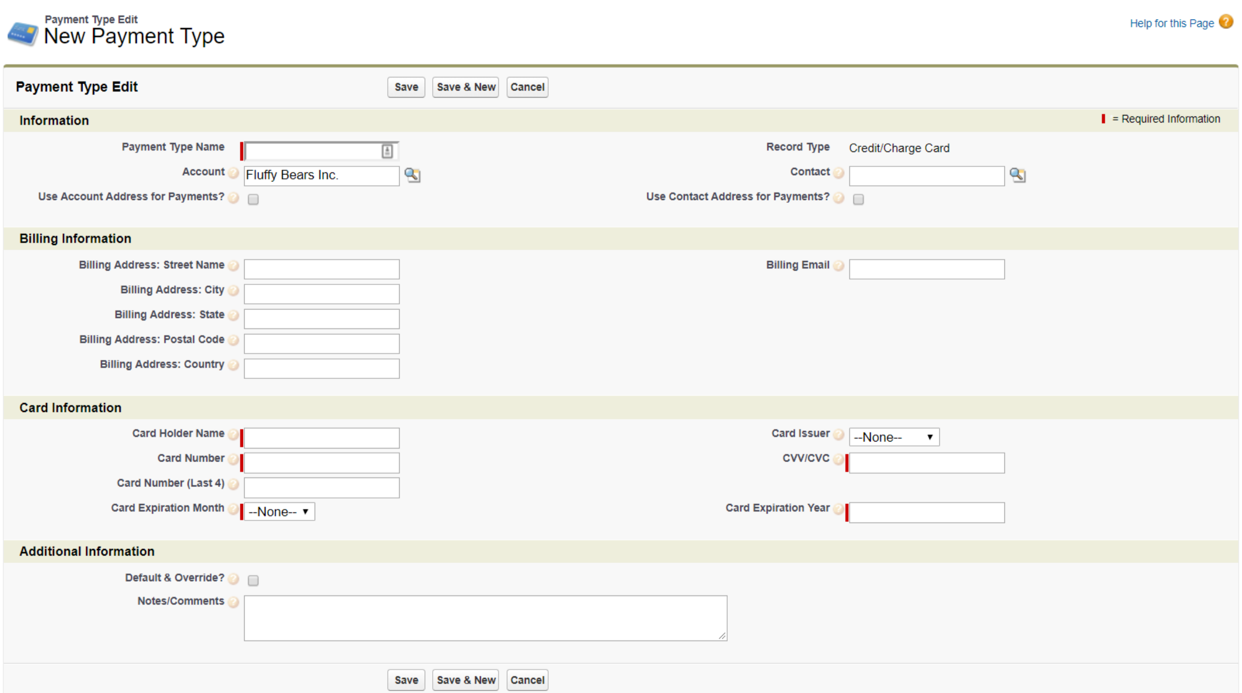
delete the Configuration record.

Once deleted, any pending payments associated with the configuration will not be processed unless a different Configuration will be assigned manually.

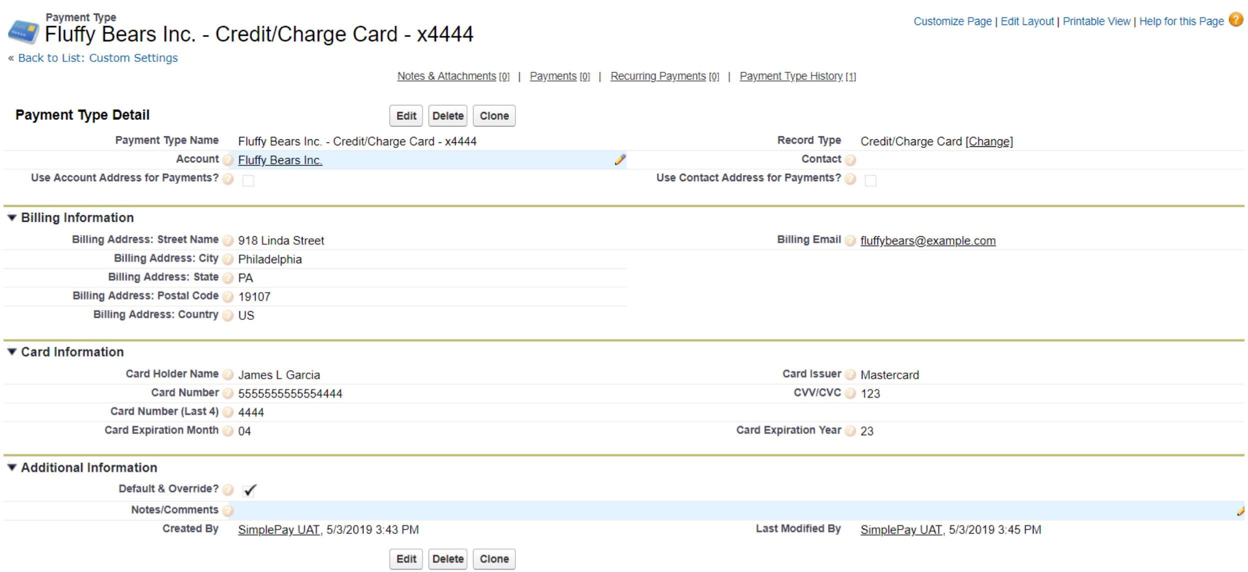
Creating Payment Type Records

Payment Type records are the first thing to start processing payments. Every payment to be processed via SimplePay has to be associated with a Payment Type record and a Configuration Record. The steps to create a new Payment Type record for an Account or a Contact are as follows -

1. Navigate to the detail page for the parent Account or Contact for which the Payment Type has to be created.
2. Click on the New Payment Type button on the Payment Types related list on the detail page. This will navigate to the Payment Type creation page.
3. Two types of Payment Types can be created in SimplePay, one for processing credit/charge card information whereas other is used for processing payments using a bank account. Choose the necessary payment type record and click on the Continue button. For the purpose of this example, we will create a new Credit/Charge Card type of payment.



4. Choose either an Account or a Contact record as a parent for this Payment Type. Checking either “Use Account Address for Payments?” or “Use Contact Address for Payments?” checkbox would cause the address fields on the parent record to be sent to the payment processor. If left unchecked, the address fields on the Billing Information section would be used for processing payments.
5. Enter an email address in the Billing Email field. This email address will be used to send payment confirmation receipts from the payment processor.
6. Enter the card details in the respective fields. If the application configuration permits, the system will try to validate the entered credit card information. Otherwise, any value entered in those fields will be saved on the record.
7. The “Default & Override?” checkbox decides if the saved payment type record will be used as a default payment type for all the transactions to be performed henceforth.
8. Click on the Save button to save the Payment Type record. This will navigate you to the detail page for the newly created Payment Type.



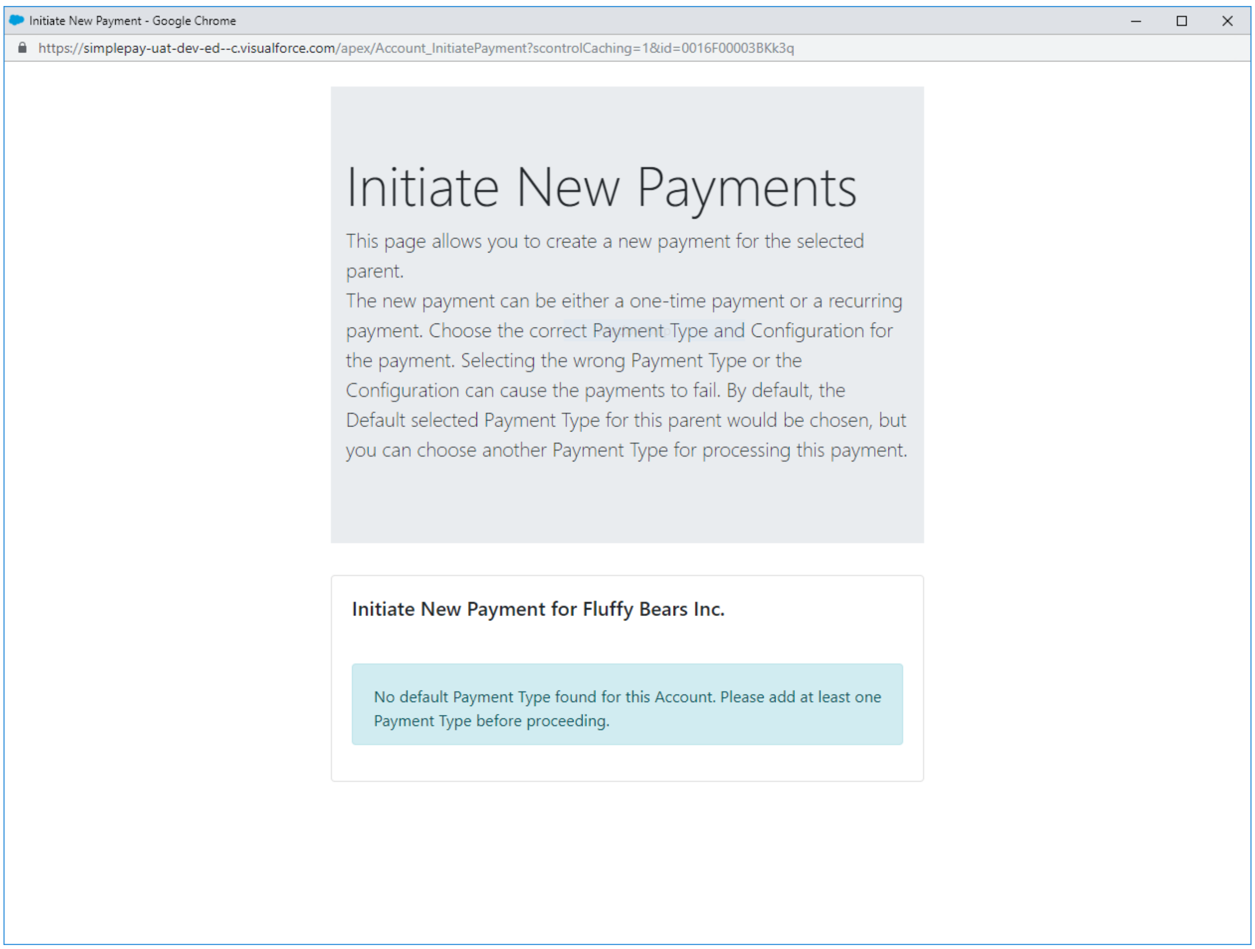
9. Similarly you can also add an EFT Payment Type record. You can have multiple payment types for every parent. Deleting an existing Payment Type record will cause any pending payment transactions associated with that payment type remain unprocessed.

Though SimplePay allows users to have multiple payment types for every parent, you can choose only one Credit/Charge Card or EFT Payment Type as default.

Creating Payment Records

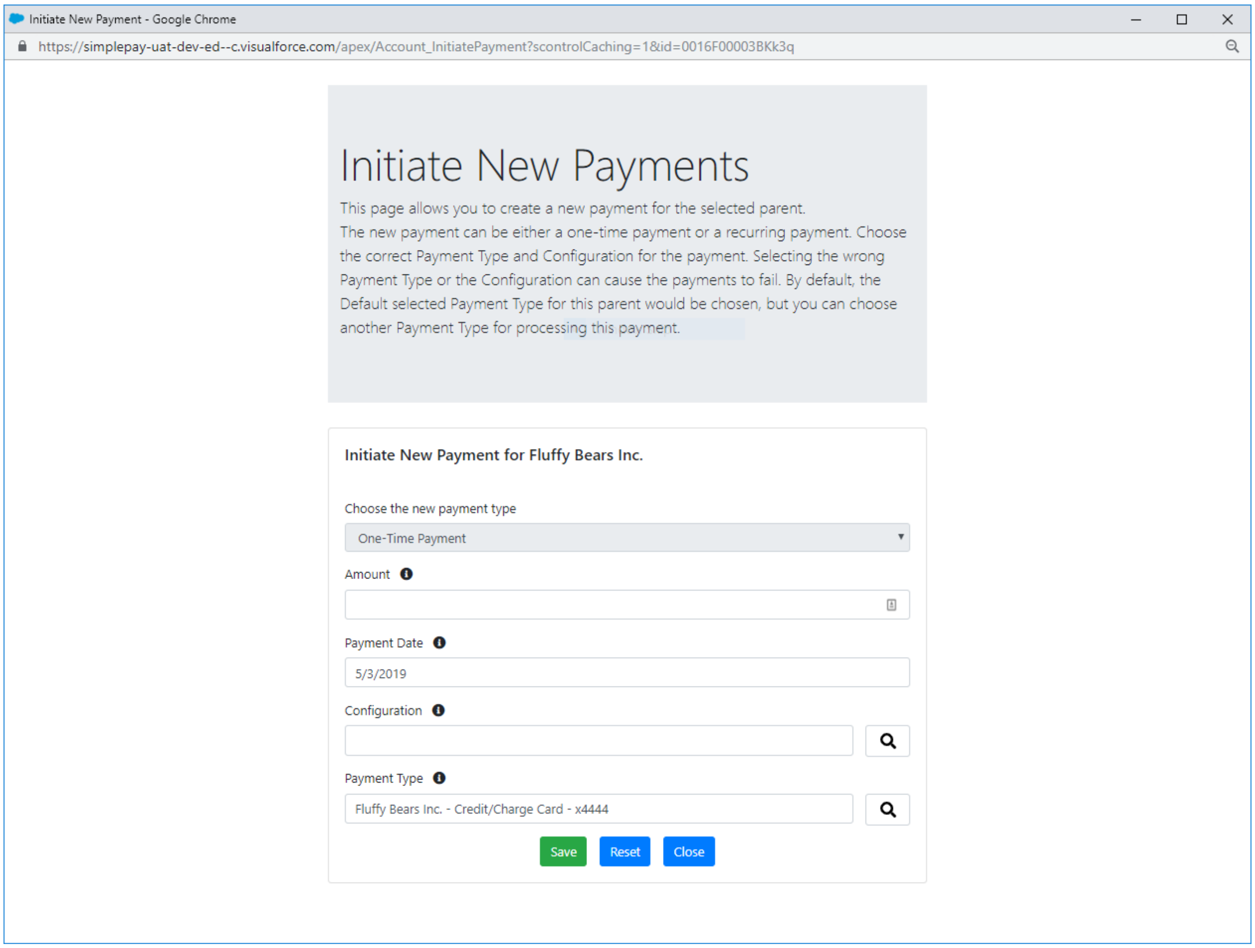
Payment records are the starting point for all payments to be processed via SimplePay. Every payment record should be associated with a parent Account or Contact, a Payment Type record and a Configuration record to begin with. The following steps will take you through the steps required to create a new Payment record -

1. Navigate to the parent Account/Contact record for which the payment record is to be created.
2. Click on the New Payment button on the detail page to start creating a new payment record. This will open a new window on the browser that asks you to enter the payment details.



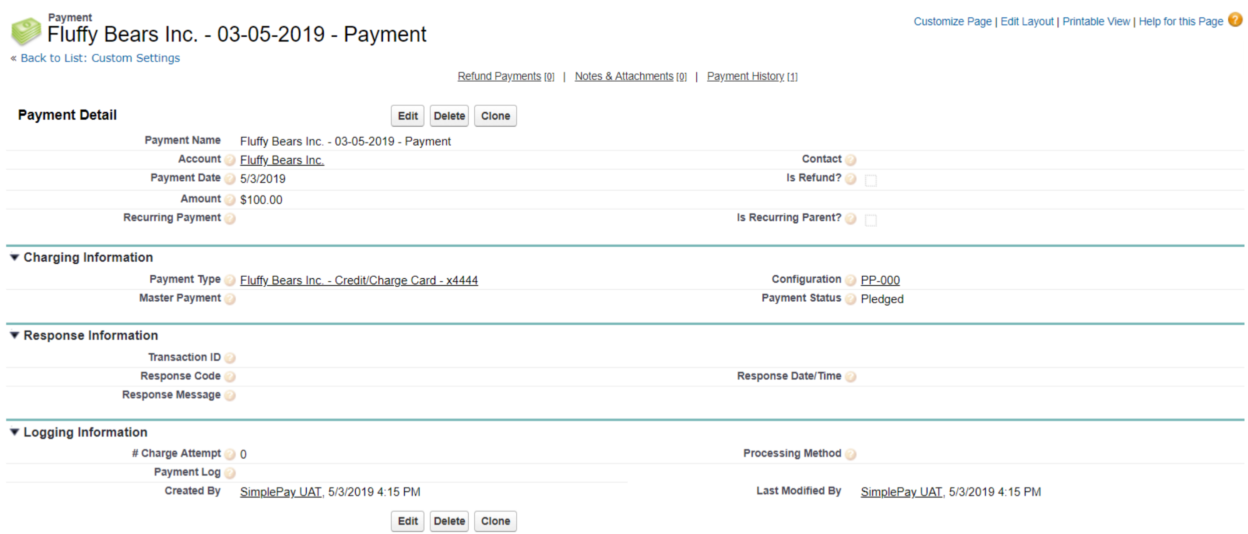
If a Default Payment Type record is not created for the parent, the page will display a message asking you to first create a Payment Type record.

3. Once a default payment type record is created, the page will ask you to choose the type of payment to be created. Available options are One-Time Payment and Recurring Payment. For the purpose of this example, we will create a new One-Time Payment. Click on the respective option in the dropdown. This will render a new form with the necessary fields to create a new One-Time Payment.



4. Enter the Amount to be charged. Payment Date will be pre-populated with today's date. In order to change the payment date, click on the date field. This will open a date picker that would allow you to choose the date for processing payment. Select the date when you want the payment to be processed.
5. Select the Configuration record using which the payment has to be processed. The Default Payment Type for the parent will be selected by default. Click on the lookup icon to choose a different payment type.
6. Once all the information has been entered, click on the Save button on the bottom to save the Payment record. This will show a confirmation message on the screen and

navigate you to the landing screen for this page. You can view the created payment record by selecting it from the Payments related list on the parent record detail page.

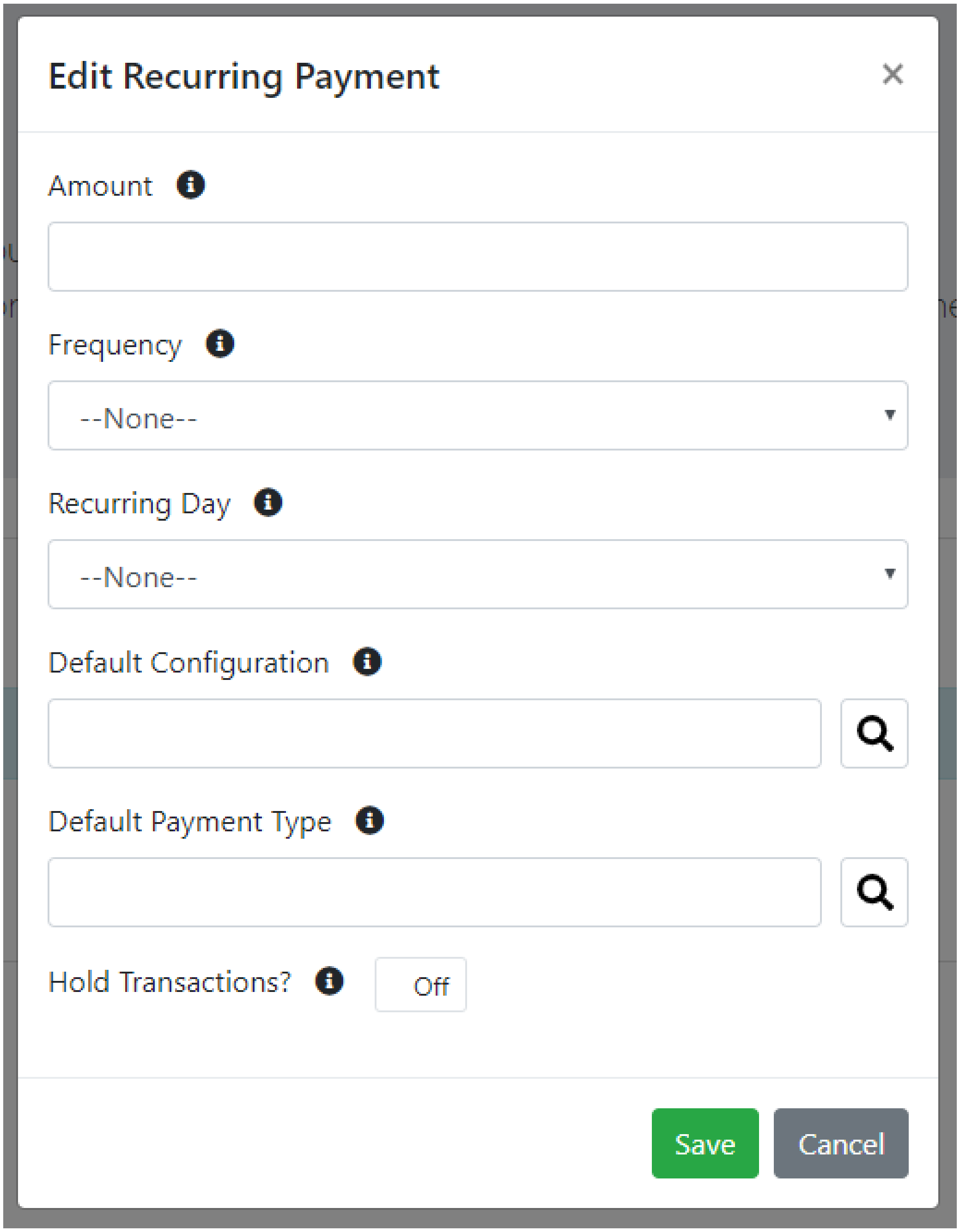


By default, the Payment Status is set to “Pledged”. In order to process this payment, change the status to “To Process”. This will initiate the payment processing sequence. For more information on payment processing and its results, refer to the "Processing Payments and Refunds" section of this documentation.

Managing Recurring Payments

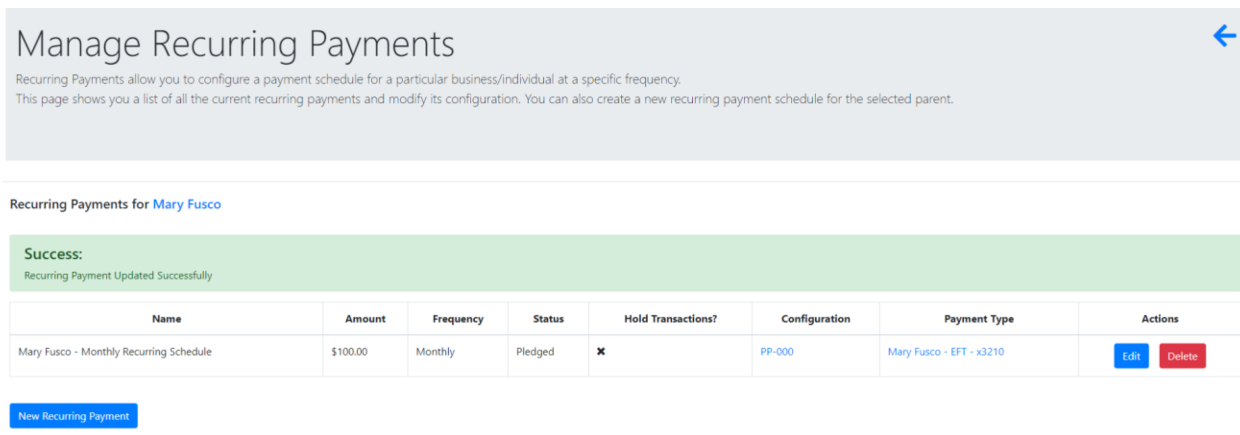
Apart from performing single, one-time payments, SimplePay also allows users to set up recurring scheduled payments. Just like a single one-time payment, every recurring payment schedule also has to be associated to a parent Account or Contact. Following are the steps to create a recurring payment schedule for a Contact. Similar steps can be followed to create a recurring payment schedule for an Account as well -

1. Navigate to the Contact record for which the recurring payment has to be created.
2. Click on the Manage Recurring Payments button on the detail page for the contact. This will redirect you to a new page for managing recurring payments.
3. If no recurring payments have been setup for the contact, a message will be displayed on the page saying “No recurring payments scheduled yet!. Click on the New Recurring Payment button to start creating a recurring payment schedule.
4. This will open a popup on the page that renders a form with the required fields to create a new recurring payment.



5. Enter the Amount in the respective field. This amount will be the amount charged on every recurrence of the payment.
6. Select the Frequency of the payment. SimplePay allows recurrence on a Daily, Weekly, Semi-Monthly, Monthly, Semi-Annually and Annual basis. If the frequency is Weekly, select the day of recurrence as well. The Recurring Day field is not required otherwise.

7. Select the Default Configuration record from the lookup. The selected Configuration will be used throughout the complete payment schedule by default. In order to use a different configuration for selected payments, change the Configuration on the respective child payment record.
8. Similarly, select the Default Payment Type. The Payment Type to be selected should be associated with the parent record for this recurring schedule.
9. Keep the Hold Transactions? value to "Off". This will ensure that payments are processed as per their schedule. If this value is set to "On", no future payments will be processed for this recurring schedule.
10. Click on the Save button to save the recurring payment schedule. This will create a new Recurring Payment record and navigate you to the landing screen of this page.



11. Depending on the payment frequency, the system will create required number of payment records for processing. The following table denotes the number of transactions created and the dates on which they will be sent for processing -

Selected Frequency	Payment Transactions Created	Payment Date
Daily	365	Every day, starting from the date of creation of Recurring Payment
Weekly	52	Every week, starting on the first Recurring Day from the date of creation of Recurring Payment

Monthly	12	Every month on the same date when the Recurring Payment was created
Semi-Monthly	24	Every 7th and 21st day of the month throughout the year. If the creation date is after 7th, first payment will occur of 21st of the same month.
Quarterly	4	Every four months throughout the year. The first payment will take place on the same date when the Recurring Payment was created. Remaining payments will be processed after a gap of three months.
Semi-Annually	2	Twice a year. First payment will be processed on the date of creation of the Recurring Payment. Second payment will be processed six months after that.
Annually	1	Once a year, the payment will take place next year on the same date when the Recurring Payment was created.

12. Click on the Edit button on the respective Recurring Payment schedule to edit the properties for that schedule. Clicking on the Delete button will show a popup stating the implications of deleting that recurring schedule.
    Note that any changes applied to the recurring schedule will change the payment information for unprocessed payments only. Any completed payments in the schedule will not be affected.
    Also deleting the recurring payment schedule will delete only the unprocessed payments.

You can also view the recurring payments for an Account/Contact by clicking on the respective schedule on the Recurring Payments related list on that parent detail page.
Note: In order to automatically process the recurring payments, ensure that the "Payment_InitiateAsync" and "ProcessAsyncBatch" batch classes are scheduled. For more information on these batches, refer to the "Scheduling Payment Processing" section of this document.

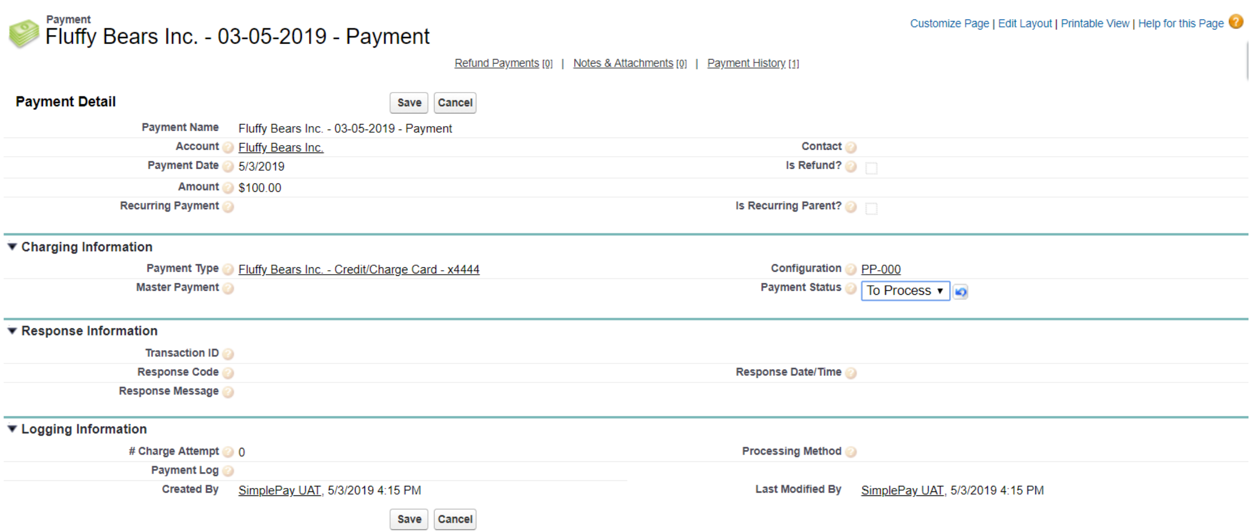
Processing Payments and Refunds

SimplePay offers both payment and refund solutions directly out-of-the box without any additional setup. All you need to do is to configure your payment processors correctly as mentioned above, and you are good to go.

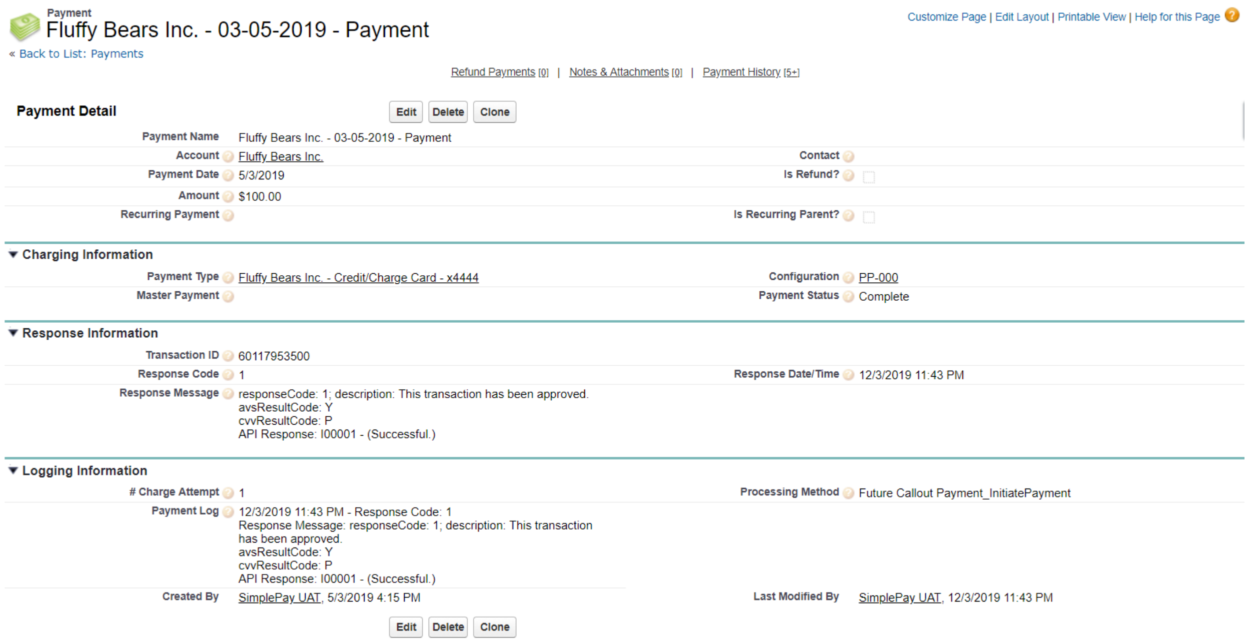
Processing Payments

Follow these simple steps to process your first payment -

1. Navigate to the desired Account or Contact record for which the payment is to be processed. For the purpose of this example, we will use an Account record already present in the system.
2. Find a payment record on the “Payments” related list on the detail page for the Account and navigate to the detail page of that payment record.
3. Verify that the Payment Status of the Payment record is “Pledged”. SimplePay processes payment records only having the Payment Status as “Pledged” and “Retry” by default.
4. Change the status of the payment record to “To Process”. This will initiate the payment processing functionality on that record.



5. In order to payments to be processed successfully, ensure that the data in the Configuration and Payment Type records associated with the Payment records contain correct information.
6. The payment will be processed automatically in the background. Refresh the record detail page after around a couple of minutes and the Payment Status of the record would have been updated based on the response received from the payment processor.



7. The following table describes the data populated in the fields after the payment processing has been completed -

Field Name	Data Populated After Payment Processing
Transaction ID	Contains the Transaction ID received from the payment processor. Use this ID to track the payments in your merchant account. This ID is also required for processing refunds after the payment is charged.
Response Code	Response Code received from the payment processor. Each payment processor contains a set of predefined response codes for both successful and failed transactions. For more information on the response codes, contact your payment processor support.
Response Date/Time	The timestamp when payment processing request was completed.
Response Message	Detailed response message from the payment processor

	regarding the success or failure of the payment request.
# Charge Attempt	Number of previously charged attempts for this payment request. SimplePay automatically updates the Payment Status to “Failed” when the payment processing request is sent 3 times and returned with a failure.
Processing Method	The method used for processing payments. Manually updating the status to “To Process” updates this field value to “Future Callout Payment_InitiatePayment”. If the payment is processed automatically using the background jobs, the field is updated to “ProcessAsyncBatch”.
Payment Log	Contains a detailed log of all the payment processing attempts for this record.

In addition to the above table, following are the Payment Status field values and their respective meanings -

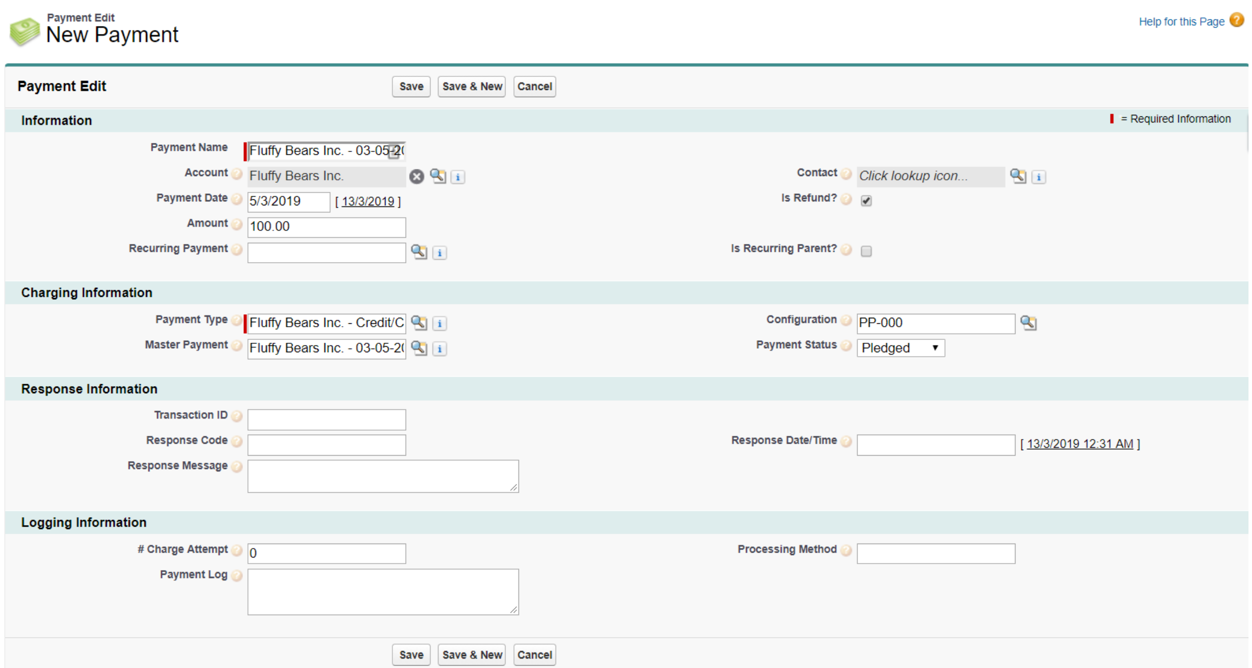
Payment Status	What does it mean?
Pledged	The Payment is due to be processed and has not been picked up for processing.
Processing	The Payment record is sent for processing and a response is yet to be received from the processor.
On Hold	For Recurring Payment transactions only. This status is set only when the parent Recurring Payment is set to hold by checking the “Hold Transactions?” checkbox.
To Process	Setting the Payment Status to this value sends the Payment record for processing.
Complete	Payment processing response is received and is successfully processed.
Retry	When the payment processing is failed but the max. number of charge attempts have not been performed.

Failed	Payment processing is returned with a failure response every time for the max. charge attempts for processing.

Processing Refunds

Processing Refunds is easy in SimplePay. All you need to do is All you need to do is click on the "Initiate Refund" button on the payment record that you need to be refunded. By default, SimplePay allows you to only refund the transactions completely. Partial refunds would be added in the upcoming versions of the application.
On clicking the button, a new page would open that will display a message that indicates whether a refund was initiated or not.

If that does not work, you can create a clone of the payment that you need to refund, set the "Is Refund?" checkbox to true and assign the successful payment record as the Master Payment in the lookup field while cloning. Clear out all the other fields when cloning.



Once saved, change the Payment Status to "To Process" to initiate the refund. All the field values including the Payment Status field will be updated as mentioned above once the response from the payment processor is received.

Note that only the settled transactions can be refunded. In order to stop the payment from being processed, go to your merchant account and void the transaction. For more information on how to void a transaction, contact your payment processor support.

Scheduling Payment Processing

SimplePay automatically selects the Payment records that have elapsed and sends them for processing to the payment processor. Valid payment records are sent to the payment processor on a nightly basis (depending on the frequency of batches) and the response is noted on the respective records as well. In order to ensure that the records are processed as expected even in the background, the following batch classes should be scheduled, along with their recommended frequencies and running users -

Batch Class Name	Steps to Setup Schedule	Recommended Frequency	Running User
Payment_InitiateAsync	Schedule Apex	Every Day during hours of minimum usage	System Administrator
ProcessAsyncBatch	Running script from the Developer Console	Every Day during hours of minimum usage	System Administrator

The scripts required to be run from the Developer Console are as follows -

Batch Class Name	Developer Console Script

Payment_InitiateAsync	`System.schedule(`
	`'Payment_InitiateAsync-' + System.now(),`
	`'0 0 2 ? * * *  ',`
	`new simplepay.Payment_InitiateAsync()`
	`);`

ProcessAsyncBatch	`Database.executeBatch(new simplepay.ProcessAsyncBatch(), 1);`

The above batch classes would be running as soon as SimplePay is installed. The above mentioned code should be run only when the batches are aborted and user needs to reschedule manually.

Contacting SimplePay Support

SimplePay offers standard support for all the customers using the application. In order to raise a request, send us a mail along with all your queries to hello@syntaxsofts.com. On receiving a request, a support staff will be associated to your query and will respond shortly.

For more information on terms and condition, contact SimplePay support at hello@syntaxsofts.com or call us at +91 9405791062.