**Stripe Integration Guide**

Version 16.1.0

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# Summary

1. <CHAPTER NOT TO EXCEED ONE PAGE>
2. <WHAT THE COMPONENT DOES, E.G. INTEGRATION WITH A 3RD PARTY PAYMENT GATEWAY>
3. <3RD PARTY PRODUCTS AND CONTRACTUAL REQUIREMENTS, E.G. WHAT PRODUCT AND PRODUCT VERSION THE COMPONENT INTEGRATES WITH, IF CUSTOMER IS REQUIRED TO CONTRACT WITH THE 3RD PARTY OR IF THEIR SERVICES ARE RESOLD BY DEMANDWARE, ANY ADDITIONAL COSTS THE CUSTOMER WILL BE CHARGED BY 3RD PARTY>
4. <WHAT THE INTEGRATION ENCOMPASSES, E.G. DEPLOYMENT OF A GENERIC CARTRIDGE, MODIFICATION OF STOREFRONT CODE, NEW BUSINESS MANAGER MODULE, CERTIFICATION PROCESS>

The Stripe LINK Cartridge facilitates integration between a Demandware Storefront with Stripe Payment Services; including Stripe.js Credit Card tokenization, Payments, and Stripe’s RELAY services for supporting embedded eCommerce solutions on social channels.

Contracting with Stripe is required for Live Production deployment of the cartridge. Though the cartridge can be installed and tested using a freely available Stripe Test account at <https://dashboard.stripe.com>. Please contact your Stripe Implementation Consultant for help with taking your Stripe account Live.

Stripe LINK Cartridge integration requires the following steps:

1. **Import System Object Metadata** for managing Stripe configurations and supporting data points
2. **Import Services** for enabling external interfaces with Stripe API
3. **Import and customize OCAPI settings** for enabling RELAY services
4. **Import and Schedule Job Process** for managing Product Feed
5. **Apply Custom Code** to the DWRE Storefront
6. **Configure the Storefront Settings** to connect to Stripe services and enable LINK cartridge integration to the storefront

# Component Overview

## Functional Overview

<BUSINESS/FUNCTIONAL OVERVIEW OF COMPONENT, INCLUDING FLOW CHARTS, DIAGRAMS WHERE APPLICABLE>

### *Stripe Tokenization and Charges*

Stripe Tokenization modifies default Demandware Credit Card collection and processing with Stripe.js technologies to tokenize the credit card data and process payments using the tokenized data. During the checkout process, the cartridge will tokenize any new cards entered by customers. This data is transformed into a Stripe Customer object and associated Source. At the point of purchase, the tokenized data is used to generate a Stripe Charge to validate the payment transaction. Registered Customers can manage (add, delete) Credit Cards to their storefront-connected Stripe Customer Account for re-use in subsequent storefront purchases.

### *Stripe RELAY*

Stripe RELAY LINK cartridge updates enable Stripe RELAY to interact with the Storefront to manage the checkout process from an external system. This includes allowing Stripe RELAY to create/modify/delete basket items, submit payments, and complete orders from social-embedded interfaces. For example, allowing customers to purchase goods from Twitter. Additionally, Stripe RELAY cartridge functionality includes the creation of a Google Product Feed that can be used to import into the Stripe Account.

## Use Cases

<USE CASES COVERED BY THE COMPONENT>

### *Stripe.js Tokenization*

When customers enter credit card information on the storefront, the card information is tokenized via Stripe.js via client > Stripe interactions. Unmasked credit card data is therefore never sent to the Demandware servers.

### Stripe Charges

System will create a Stripe Charge (authorize or capture, based on Business Manager configuration) based on a successfully created and submitted Basket. All Stripe Charges are created against a Stripe Customer ID and associated Source.

### AVS Auto-Fail Transactions

Site administrators

### OCAPI-based purchases (Stripe RELAY)

Customer can purchase Demandware-based products from Stripe RELAY enabled third party interfaces, including embedded products on Twitter.

## Limitations, Constraints

<WHICH PARTS OF THE 3RD PARTY OFFERING ARE NOT SUPPORTED>

<WHICH DEMANDWARE FEATURES OR CONFIGURATIONS ARE NOT SUPPORTED, E.G. MULTIPLE LOCALES, NON-US SHIPPING ADDRESSES, ORDERS WITH MORE THAN ONE SHIPPING ADDRESS, CATALOG SIZE LARGER THAN 500K>

<IF YOUR INTEGRATION REQUIRES A CUSTOM CATALOG FEED, DESCRIBE ANY LIMITATIONS ON PRODUCT ATTRIBUTES, SUCH AS NON-SUPPORTED HTML ATTRIBUTES, 0.00$ PRICES, ONLY ORDERABLE PRODUCTS EXCLUDING BACKORDER>

Stripe offers a number of standard services that are not supported by the cartridge. These include Subscriptions, Plans, and Coupons support.

The Google Product Feed support included in the cartridge only supports a limited number of product attributes, including variation attributes for Size and Color. Additional attribute support requires customizing the product feed output.

## Compatibility

<AVAILABLE SINCE DEMANDWARE X.Y.Z>

<DEMANDWARE VERSION REFERENCED FOR INTEGRATION INTO STOREFRONT (REFERENCE APPLICATION) AND USED IN SCREENSHOTS>

Available since Demandware Platform Release 16.8, Site Genesis 103.0.0

The cartridge is available for installations on storefronts that support both Pipeline and Controller SiteGenesis implemenations.

## Privacy, Payment

<INDICATE IF CUSTOMER PROFILE DATA IS BEING ACCESSED, IF CREDIT CARD DATA IS BEING PROCESSED OR STORED WITHIN DEMANDWARE>

No unmasked credit card data is stored within Demandware. The cartridge tokenizes all payment data via direct client 🡪 Stripe communications and obscures any sensitive CCD before it arrives on the Demandware servers. Similarly, all credit card data that is retrieved by Demandware from the Stripe servers is also masked and/or tokenized.

# Implementation Guide

## Setup

<LIST CARTRIDGES THAT ARE PART OF THE COMPONENT AND ENTRY POINTS/PARAMETERS (API) IN DETAIL>

<HIGHLIGHT WHAT CARTRIDGES NEED TO BE DEPLOYED TO PRODUCTION, WHAT ARE FOR TESTING, WHAT SHOW CUSTOM CODE EXAMPLES (E.G. FOR STOREFRONT INTEGRATION)>

The Stripe LINK Cartridge contains several cartridges that are required for full functionality. Additionally, Pipeline and Controller support is broken out into two separate cartridges, thereby facilitating the installation and use of one or the other models.

Import all three cartridges into UX studio and associate them with the Server Connection.

### *Cartridges*

#### int\_stripe

int\_stripe contains all the script logic, templates, resource properties, and front-end code required for the base Stripe storefront integration.

1. js
   1. stripe.js
2. scripts
   1. hooks/afterPostPaymentInstrument.js
   2. hooks/afterSetShippingAddress.js
   3. hooks/authorize.js
   4. hooks/authorizeCreditCard.js
   5. payment/processor/STRIPE\_CREDIT.js
   6. service/stripe.ds
   7. service/stripeInit.ds
   8. hooks.json
   9. stripeHelper.ds
3. scss
   1. \_stripe.scss
4. static
   1. stripe/jquery.payment.js
5. templates
   1. account/payment/makefdefault.isml
   2. account/payment/makedefaultlink.isml
   3. account/payment/stripeinputs.isml
   4. checkout/billing/stripe\_creditcard\_fields.isml
   5. checkout/billing/stripe\_paymentmethods.isml
   6. checkout/billing/stripecreditcardjson.isml
   7. feed/displayproductfeed.isml
   8. stripe/footerinclude.isml
   9. resources/account.properties
   10. resources/checkout.properties

#### int\_stripe\_controllers

int\_stripe\_controllers contains all the logic for managing the Stripe integration controller logic via Demandware’s Controllers model. int\_stripe\_controllers should be used in favor of int\_stripe\_pipelines if the storefront will be using the latest version of SiteGenesis.

1. controllers
   1. Stripe.js

#### int\_stripe\_pipelines

int\_stripe\_pipelines contains all the logic for managing the Stripe integration controller logic via Demandware’s Pipelines controller model. int\_stripe\_pipelines can be used in case the integration requires the use of Pipelines for any reason.

Additional note: int\_stripe\_pipelines is required for the custom Product Feed job. The Demandware Platform, as of version 16.8, requires Pipeline code for custom scheduled jobs.

1. pipelines
   1. STRIPE\_CREDIT.xml
   2. Stripe.xml
2. scripts
   1. feed/GenerateProductFeed.ds
   2. pipelinescripts/AddCard.ds
   3. pipelinescripts/AuthorizePayment.ds
   4. pipelinescripts/DeleteCard.ds
   5. pipelinescripts/DisplayProductFeeds.ds
   6. pipelinescripts/FetchCards.ds
   7. pipelinescripts/GetCustomerCreditCard.ds
   8. pipelinescripts/IsStripeEnabled.ds
   9. pipelinescripts/MakeDefault.ds
   10. pipelinescripts/RefundCharge.ds

#### Metadata

1. stripe\_metadata.xml
2. stripe\_services.xml
3. OCAPI Settings.txt

## Configuration

*<CONFIGURATION STEPS INCLUDING ASSIGNMENT OF CARTRIDGES TO SITE, CUSTOM PREFERENCES, SET UP OF JOB SCHEDULES, CONFIGURATION DIFFERENCES FOR DIFFERENT INSTANCE TYPES, IMPORT OF METADATA>*

### Assign Cartridges to Site(s)

#### Site Cartridge Assignment

1. Navigate to Administration > Sites > Manage Sites
2. Click on the Site Name for the Storefront Site that will gain Stripe Functionality
3. Select the “Settings” tab
4. Add “*int\_stripe*” to the **Cartridges:** path, separating each cartridge in the list with “:”
   1. For example, “*app\_storefront\_controllers:app\_storefront\_core:int\_stripe\_controllers:int\_stripe*”
5. Add either the “*int\_stripe\_controllers*” OR “*int\_stripe\_pipelines*” to the cartridge path
   1. Note that if both cartridges are added to the cartridge path then “*int\_stripe\_controllers*” code is executed when Stripe URLs are requested
6. Repeat steps 2 – 5 for each Storefront Site where Stripe will be implemented

#### Business Manager Cartridge Assignment

Stripe cartridges need to be assigned to the Business Manager Site only if the implementation makes use of the Product Feed for use with Stripe RELAY functionality. Note also that, at the time of this writing, the Pipelines cartridge – “int\_stripe\_pipelines” – is required for the custom Job Feed schedule rather than “int\_stripe\_controllers”.

* Navigate to Administration > Sites > Manage Sites
* Click on the Business Manager Site > “Manage the Business Manager site.” Link
* Add “*int\_stripe:in\_stripe\_pipelines*” to the **Cartridges:** path, separating each cartridge in the list with “:”

### Import System Object Definitions

1. Login to Business Manager and navigate to **Administration > Site Development > Import & Export**
2. Navigate to **Import & Export > Import & Export Files** and click “Upload”
3. In the **Upload Import Files > Upload File** section, select *stripe\_metadata.xml* file from the metadata/ folder of the LINK Cartridge and click “Upload”
4. Return to the **Administration > Site Development > Import & Export** page
5. Click on “Import” in the **Import & Export > Meta Data** section
6. Select the radio button next to the *stripe\_metadata.xml* file and click “Next >>”
7. Once the XML validation completes, click “Import”
8. After the import has completed, a Success status will display in the Status section

### Import Services

1. Login to Business Manager and navigate to **Administration > Operations > Import & Export**
2. Navigate to **Import & Export > Import & Export Files** and click “Upload”
3. In the **Upload Import Files > Upload File** section, select *stripe\_services.xml* file from the metadata/ folder of the LINK Cartridge and click “Upload”
4. Return to the **Administration > Operations > Import & Export** page
5. Click on “Import” in the **Import & Export > Services** section
6. Select the radio button next to the *stripe\_services.xml* file and click “Next >>”
7. Once the XML validation completes, click “Import”
8. After the import has completed, a Success status will display in the Status section

Imported Services:

* addCard
* updateCard
* deleteCard
* fetchCustomerCards
* authorizePayment (Stripe Charge)
* refundCharge
* createCustomer
* retrieveCustomer
* updateCustomer

### Custom Site Preferences

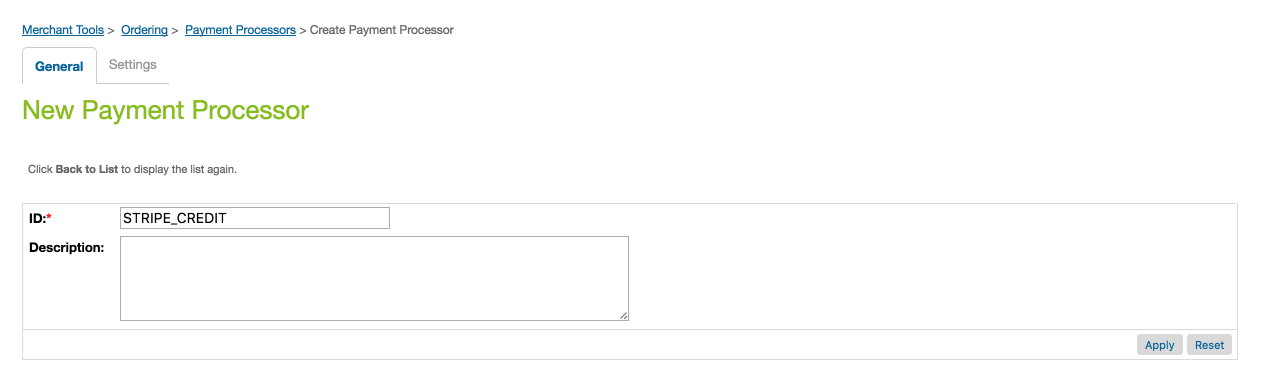
Update the **Merchant Tools > Site Preferences > Custom Site Preferences > Stripe Configurations** with Site specific values.

1. **Stripe API Key**
   1. Can be obtained through a Stripe Account Dashboard (<https://dashboard.stripe.com>) from Account Settings > API Keys
2. **Stripe Publishable Key**
   1. Find along with Stripe API Key
3. **Capture Funds on Stripe Charge**
   1. Default value: true (Yes)
   2. Set to false (No) to instead Authorize Stripe Charges
4. **AVS Address Fail Statuses**
   1. Select one or more AVS statuses. If the Stripe Address check returns any of the selected statuses, the Order will auto-fail and reverse the Stripe Charge
5. **AVS Zip Fail Statuses**
   1. Select one or more AVS statuses. If the Stripe Zip check returns any of the selected statuses, the Order will auto-fail and reverse the Stripe Charge
6. **Enable Stripe RELAY Payment Authorization**
   1. If enabled, Orders placed via OCAPI will post Credit Card Charges against the Stripe Account associated with the API and Publishable keys
7. **Product Feed Directory**
   1. The directory within the IMPEX WebDAV folder where the Product Feed .tsv file will be saved
8. **Product Feed File Name**
   1. File name for the actual Product Feed File
9. **Product Feed Default Brand Name**
   1. Update this field to force all brand attributes in the feed to use a single brand name. Leaving this field empty will result in falling back to Product.brand attribute value.

### Payment Settings Updates

#### Add New Payment Processor

Navigate to **Merchant Tools > Ordering > Payment Processors and click** "New" button. In the new window set the ID attribute to value "**STRIPE\_CREDIT**" and click "Apply".



#### Update Payment Methods

#### Navigate to Merchant Tools > Ordering > Payment Methods, click on the CREDIT\_CARD payment method and select the STRIPE\_CREDIT payment processor in dropdown under the CREDIT\_CARD Details section

#### Credit Card Support

The base LINK Cartridge code contains support for all credit cards supported by Stripe. However, if you need to make updates to how the OMS handles credit card ‘type’ values and/or how they are displayed on the storefront, update the references to CC types in the following files accordingly:

1. int\_stripe/cartridge/static/default/stripe/jquery.payment.js
2. int\_stripe/cartridge/templates/resources/checkout.properties

### Product Feed Setup

#### BM Configurations

Three configurations, described earlier, control some basic settings for the product feed file name and brand name setting. Note that these can all be left blank and the feed job will continue using default settings.

#### Custom Scheduled Job

1. Login to Business Manager and navigate to **Administration > Operations > Import & Export**
2. Navigate to **Import & Export > Import & Export Files** and click “Upload”
3. In the **Upload Import Files > Upload File** section, select *stripe\_jobs.xml* file from the metadata/ folder of the LINK Cartridge and click “Upload”
4. Return to the **Administration > Operations > Import & Export** page
5. Click on “Import” in the **Import & Export > Job Schedules** section
6. Select the radio button next to the *stripe\_jobs.xml* file and click “Next >>”
7. Once the XML validation completes, click “Import”
8. After the import has completed, a Success status will display in the Status section

The job will need to be customized to match the Site needs. This includes enabling the job, assigning an appropriate Site, and scheduling based on the implementation’s requirements.

#### Dynamic Mapping for URL

For importing the Feed into Stripe, add a Dynamic Mapping to make sure Stripe can handle the requested .tsv filetype.

1. Navigate to Merchant Tools > Site URLs > Dynamic Mapping
2. Add a new rule: **/productfeed.tsv p,,,Stripe-DisplayProductFeed,,,**

The file can now be imported into the Stripe Dashboard. Visit <http://dashboard.stripe.com>, clidk RELAY > Products. Then click the ‘Manage Feed’ link to open up the modal. Enter the DWRE URL for the feed into the Feed URL and format box, selecting Google as the feed type.

### OCAPI Settings

Stripe RELAY relies on DWRE’s Open Commerce API (OCAPI). Starter settings are included in the Stripe LINK Cartridge in metadata/OCAPI Settings.txt. Please refer to Demandware’s OCAPI documentation regarding OCAPI, how it works, and how to get it set up: <https://documentation.demandware.com/DOC1/topic/com.demandware.dochelp/OCAPI/16.8/usage/GettingStartedWithOCAPI.html>

#### Steps to import and manage OCAPI Settings

1. Copy the contents of metadata/OCAPI Settings.txt into Business Manager.
   1. Navigate to Administration > Site Development > Open Commerce API Settings
   2. Copy and paste the contents from the .txt file to the textarea in Business Manager
2. Update the settings
   1. Set the “client\_id” property value to a client ID created through Demandware Accounts
   2. Customize the various property values in the JSON object to increase security and/or limit access to the OCAPI endpoints.

#### Enpoints used for the RELAY Integration

* + - * **Authorize Customer** <https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16_6/customers/auth>
      * **Create Basket** <https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16_6/baskets>
      * **Set Customer Email (guest checkout)** [https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16\_6/baskets/{basket\_id}/customer](https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16_6/baskets/%7bbasket_id%7d/customer)
      * **Add Item to Basket** [https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16\_6/baskets/{basket\_id}/items](https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16_6/baskets/%7bbasket_id%7d/items)
      * **Get Shipping Methods** [https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16\_6/baskets/{basket\_id}/shipments/{shipment\_id}/shipping\_methods](https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16_6/baskets/%7bbasket_id%7d/shipments/%7bshipment_id%7d/shipping_methods)
      * **Set Shipping Method** [https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16\_6/baskets/{basket\_id}/shipments/{shipment\_id}/shipping\_method](https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16_6/baskets/%7bbasket_id%7d/shipments/%7bshipment_id%7d/shipping_method)
      * **Set Shipping Address** [https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16\_6/baskets/{basket\_id}/shipments/{shipment\_id}/shipping\_address](https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16_6/baskets/%7bbasket_id%7d/shipments/%7bshipment_id%7d/shipping_address)
      * **Set Billing Address** [https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16\_6/baskets/{basket\_id}/billing\_address](https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16_6/baskets/%7bbasket_id%7d/billing_address)
      * **Create Basket Payment Instrument** [https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16\_6/baskets/{basket\_id}/payment\_instruments](https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16_6/baskets/%7bbasket_id%7d/payment_instruments)
      * **Create Order** <https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16_6/orders>
      * **Authorize Credit Card** [https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16\_6/orders/{order\_id}/payment\_instruments](https://stripe01-tech-prtnr-na05-dw.demandware.net/s/SiteGenesis/dw/shop/v16_6/orders/%7border_id%7d/payment_instruments)

#### Custom Hooks

The Stripe LINK cartridge provides hooks for several of the OCAPI methods to help with integrating with Site customizations.

1. afterPostPaymentinstrument
   1. An empty placeholder hook for use in customizations post payment authorizations
2. afterSetShippingAddress
   1. An empty placeholder hook for use in customizations after a shipping address is added to a basket. This can be used to add custom tax calculation logic or other customizations specifically dependent on the basket shipping address.
3. Authorize
   1. The hook used to authorize payments against a Stripe Token. Can also be extended with any custom authorization logic.
4. authorizeCreditCard
   1. The hook used to authorize payments against a Stripe Token. Can also be extended with any custom authorization logic.

## Custom Code

<IF STOREFRONT APPLICATION NEEDS TO BE MODIFIED, EXPLAIN STEPS RELATIVE TO REFERENCE APPLICATION>

<IF ADDITIONAL CUSTOM CODE NEEDS TO BE WRITTEN, EXPLAIN IN DETAIL AND PROVIDE EXAMPLE.>

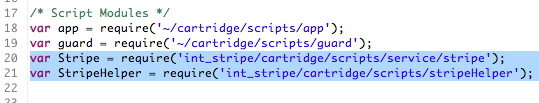
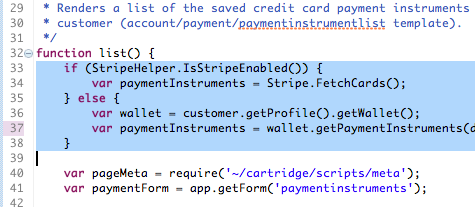
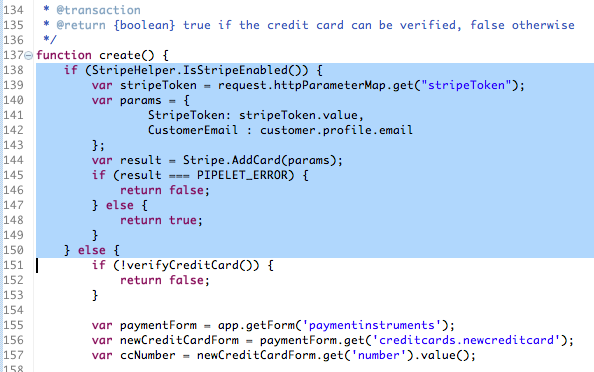
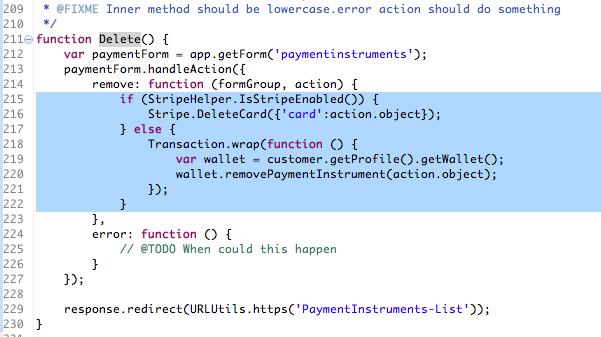
*<ESTIMATED INTEGRATION EFFORTS>*

Make the following updates to the Storefront Code. Examples provided are based on SiteGenesis 16.8 (103.0.0). The initial integration effort should take from ½ to 2 days, based on a SiteGenesis installation.

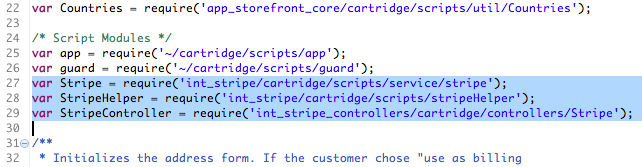
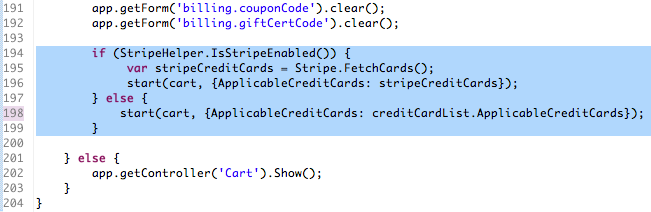
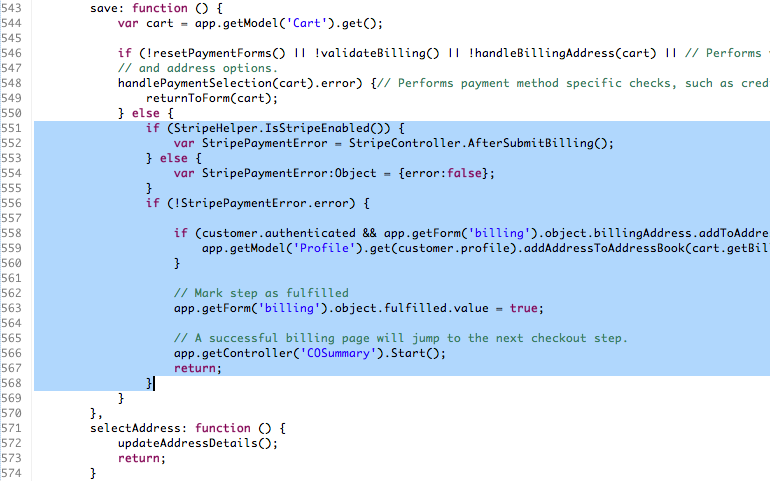
### Controllers

Controller updates are only required if integrating with Controllers instead of using Pipelines

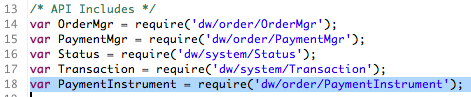
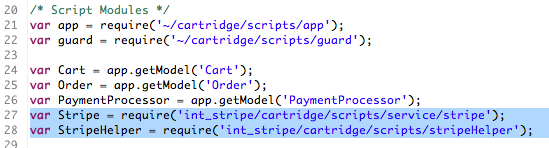
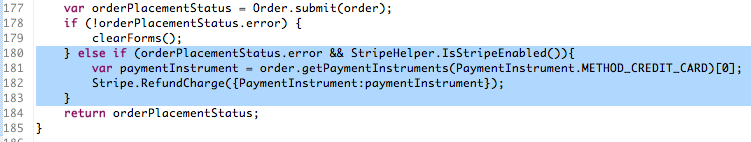
**Update the controller PaymentInstruments.js with the following custom code**

1. Add Stripe Services and StripeHelper to the Script Module includes   
     
   **var** Stripe = require('int\_stripe/cartridge/scripts/service/stripe');  
   **var** StripeHelper = require('int\_stripe/cartridge/scripts/stripeHelper');  
     
   
2. Replace the following code in the list() function:  
     
   **var** wallet = customer.getProfile().getWallet();  
   **var** paymentInstruments = wallet.getPaymentInstruments(dw.order.PaymentInstrument.METHOD\_CREDIT\_CARD);  
     
   With:  
     
   **if** (StripeHelper.IsStripeEnabled()) {  
    **var** paymentInstruments = Stripe.FetchCards();  
   } **else** {  
    **var** wallet = customer.getProfile().getWallet();  
    **var** paymentInstruments = wallet.getPaymentInstruments(dw.order.PaymentInstrument.METHOD\_CREDIT\_CARD);  
   }  
     
     
   
3. Add the following code to the beginning of the create() function  
     
   **if** (StripeHelper.IsStripeEnabled()) {  
    **var** stripeToken = request.httpParameterMap.get("stripeToken");  
    **var** params = {  
    StripeToken: stripeToken.value,  
    CustomerEmail : customer.profile.email  
    };  
    **var** result = Stripe.AddCard(params);  
    **if** (result === PIPELET\_ERROR) {  
    **return** **false**;  
    } **else** {  
    **return** **true**;  
    }  
   } **else** {  
    // insert default code from original create() function  
   }  
     
   
4. Replace the following code in the Delete() function:  
     
   Transaction.wrap(**function** () {  
    **var** wallet = customer.getProfile().getWallet();  
    wallet.removePaymentInstrument(action.object);  
   });  
   With:  
     
   **if** (StripeHelper.IsStripeEnabled()) {  
    Stripe.DeleteCard({'card':action.object});  
   } **else** {  
    Transaction.wrap(**function** () {  
    **var** wallet = customer.getProfile().getWallet();  
    wallet.removePaymentInstrument(action.object);  
    });  
   }  
     
   

**Update the controller COBilling.js to add the following code**

1. Add Stripe Services and StripeHelper to the Script Module includes  
     
   **var** Stripe = require('int\_stripe/cartridge/scripts/service/stripe');  
   **var** StripeHelper = require('int\_stripe/cartridge/scripts/stripeHelper');  
   **var** StripeController = require('int\_stripe\_controllers/cartridge/controllers/Stripe');  
     
   ****
2. Replace the following code in the publicStart() function  
     
   start(cart, {ApplicableCreditCards: creditCardList.ApplicableCreditCards});  
   With: **if** (StripeHelper.IsStripeEnabled()) {  
    **var** stripeCreditCards = Stripe.FetchCards();  
    start(cart, {ApplicableCreditCards: stripeCreditCards});  
   } **else** {  
    start(cart, {ApplicableCreditCards: creditCardList.ApplicableCreditCards});  
   }  
     
   
3. Add the following code to the billing() function, save: function() object  
     
   **if** (StripeHelper.IsStripeEnabled()) {  
    **var** StripePaymentError = StripeController.AfterSubmitBilling();  
   } **else** {  
    **var** StripePaymentError:Object = {error:**false**};  
   }  
   **if** (!StripePaymentError.error) {  
    // Default SiteGenesis Code  
   }  
     
   

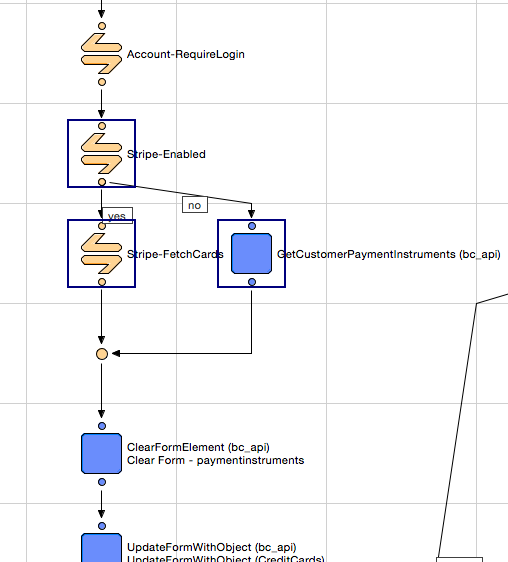
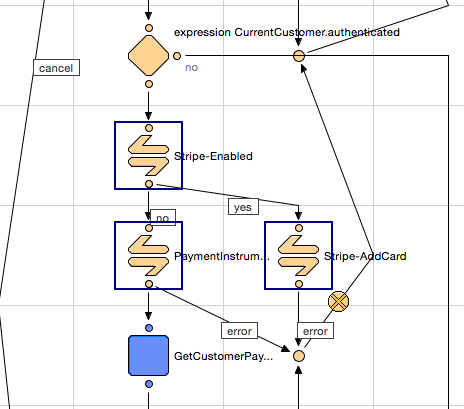
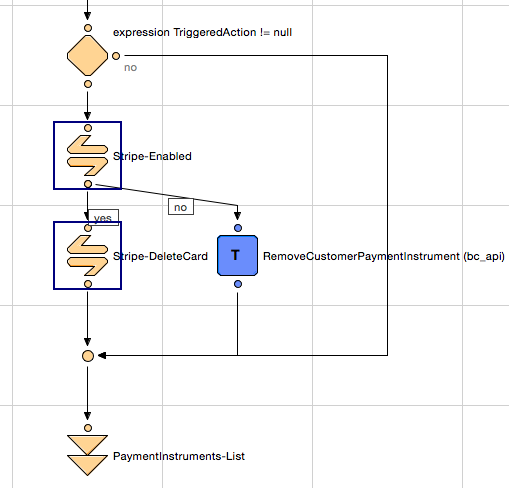
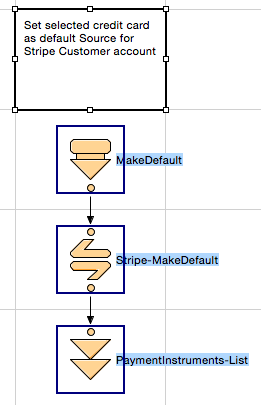
**Update the controller COPlaceOrder.js to add the following code**

1. Add PaymentInstrument to the API Includes section  
     
   **var** PaymentInstrument = require('dw/order/PaymentInstrument');  
     
   
2. Add Stripe Services and StripeHelper to the Scripts Modules section  
     
   **var** Stripe = require('int\_stripe/cartridge/scripts/service/stripe');  
   **var** StripeHelper = require('int\_stripe/cartridge/scripts/stripeHelper');  
     
   
3. Add the following code in the start() function just before the return statement  
     
   } **else** **if** (orderPlacementStatus.error && StripeHelper.IsStripeEnabled()){  
    **var** paymentInstrument = order.getPaymentInstruments(PaymentInstrument.METHOD\_CREDIT\_CARD)[0];  
    Stripe.RefundCharge({PaymentInstrument:paymentInstrument});  
   }  
     
   

### Pipelines

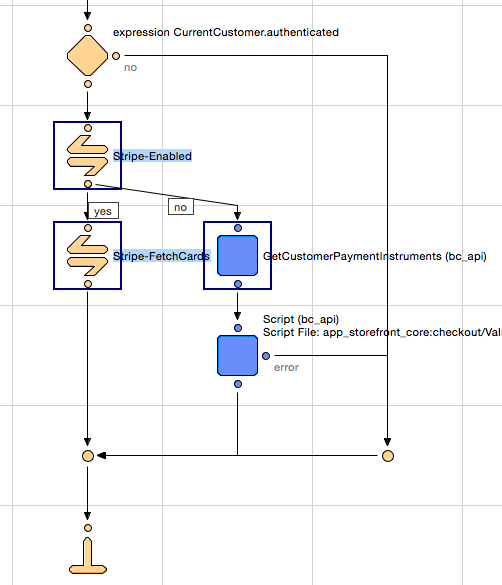
Pipeline updates are only required if integrating with Pipelines instead of using Controllers

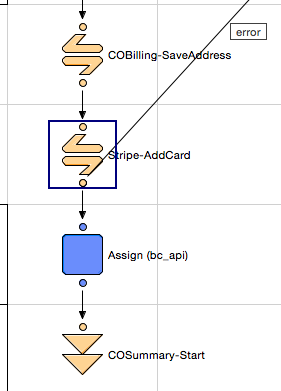
**Update PaymentInstruments.xml with the following customizations**

1. Update PaymentInstruments-List pipeline to add call nodes to Stripe-Enabled with a ‘yes’ connector directing to an additional call node Stripe-FetchCards and a ‘no’ connector directing to the default GetCustomerPaymentInstruments pipelet  
     
   
2. Update PaymentInstruments-Add pipeline to add call node to Stripe-Enabled with a ‘yes’ connector directing to a new Stripe-AddCard call node and a ‘no’ connector directing to the default PaymentInstruments-VerifyCreditCard call node  
     
   
3. Update PaymentInstruments-Delete pipeline to add a call node to Stripe-Enabled with a ‘yes’ connector directing to a new Stripe-DeleteCard call node and a ‘no’ connector directing to the default RemoveCustomerPaymentInstrument pipelet  
     
   
4. Add a new Pipeline named PaymentInstruments-MakeDefault  
   Start Node: MakeDefault  
   Call Node: Stripe-MakeDefault  
   Jump Node: PaymentInstruments-List  
     
   

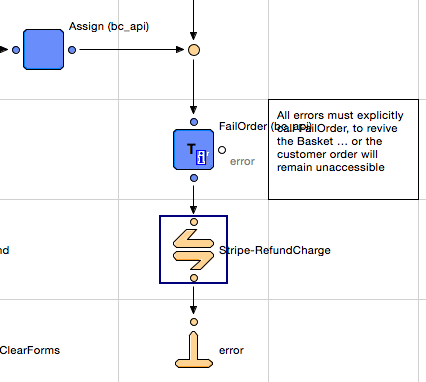
**Update COBilling.xml with the following customizations**

1. Update COBilling-InitCreditCardList pipeline to add a call node to Stripe-Enabled with a ‘yes’ connector directing to a new Stripe-FetchCards call node and a ‘no’ connector directing to the default GetCustomerPaymentInstruments pipelet



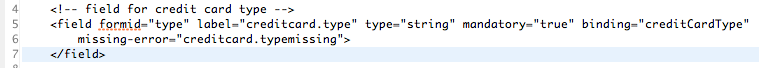
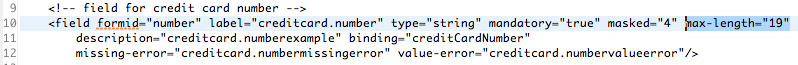
1. Add a call node to the Stripe-AddCard in the COBilling-Start pipeline just after the COBilling-SaveAddress call node. Send an ‘error’ connector to the standard error direction  
     
   

**Update the COPlaceOrder.xml pipeline to add a Stripe-RefundCharge call node just after the FailOrder pipelet**



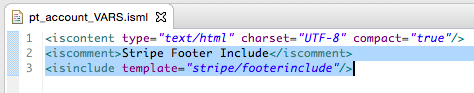
### Forms

Update creditcard.xml with the following customizations

1. Remove the credit card <options/> element: <options optionid-binding="cardType" value-binding="cardType" label-binding="name"/>  
     
   
2. Increate the max length for the creditcard.number field from 16 to 19  
     
   

### Templates

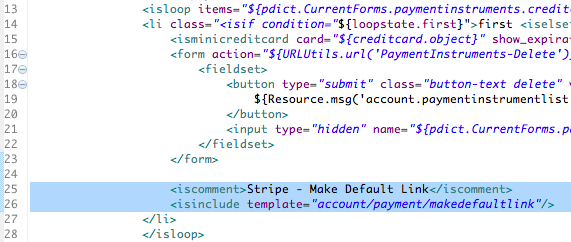
**Update account/pt\_account\_VARS.isml and checkout/pt\_checkout\_VARS to add the Stripe javascript page includes.**  
<iscomment>Stripe Footer Include</iscomment>  
<isinclude template=*"stripe/footerinclude"*/>



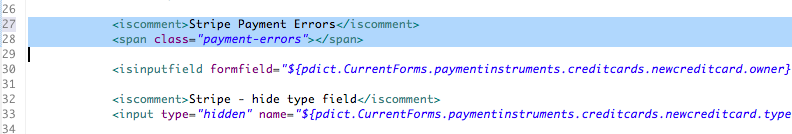
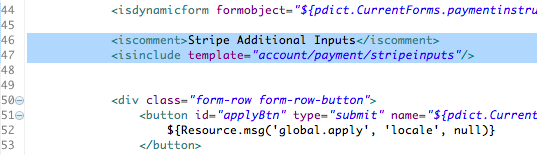
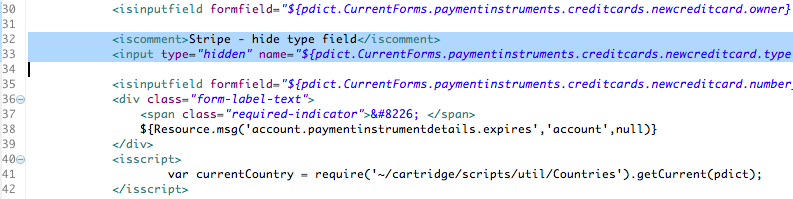
**Update account/payment/paymentinstrumentlist.isml to add code for setting a card as a default card. Add just before the closing </li> tag within the <isloop/> element**

<iscomment>Stripe - Make Default Link</iscomment>

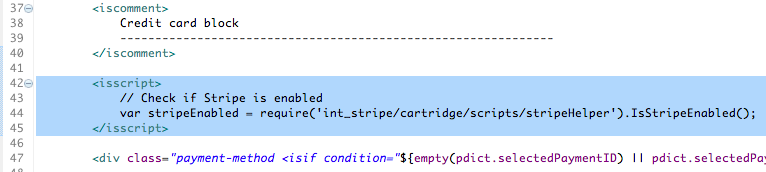
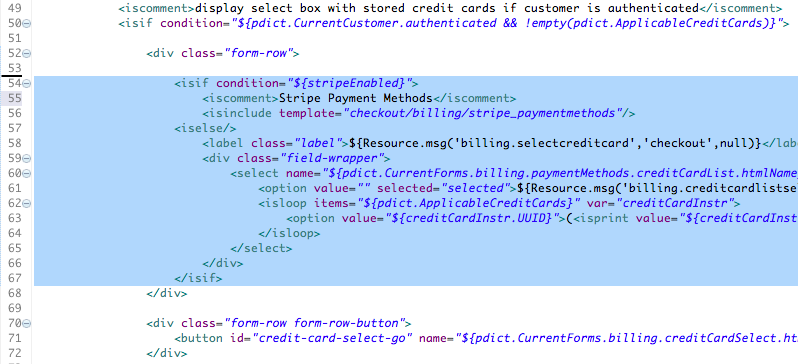
<isinclude template=*"account/payment/makedefaultlink"*/>



**Make the following updates to account/payment/paymentinstrumentdetails.isml**

1. Add <span/> tag at the top of the Credit Card form  
     
   <iscomment>Stripe Payment Errors</iscomment>  
   <span class=*"payment-errors"*></span>  
     
   Example below shows placement above the owner field, but it can be located anywhere according to design   
     
   
2. Add additional input fields just before the Apply and Cancel buttons  
     
   <iscomment>Stripe Additional Inputs</iscomment>  
   <isinclude template=*"account/payment/stripeinputs"*/>  
     
   
3. Replace the the newcreditcard.type input field with the following code  
     
   <iscomment>Stripe - hide type field</iscomment>  
   <input type=*"hidden"* name=*"${pdict.CurrentForms.paymentinstruments.creditcards.newcreditcard.type.htmlName}"* value=*"${pdict.CurrentForms.paymentinstruments.creditcards.newcreditcard.type.htmlValue}"*/>  
     
   

**Make the following updates to checkout/billing/paymentmethods.isml**

1. Add a check at the start of thhe Credit card block to see if Stripe is enabled  
     
   <isscript>  
    // Check if Stripe is enabled  
    var stripeEnabled = require('int\_stripe/cartridge/scripts/stripeHelper').IsStripeEnabled();  
   </isscript>  
     
   
2. Add a check for Stripe enabled and, if so, reference the checkout/billing/stripe\_paymentmethods.isml include  
     
   <isif condition=*"${stripeEnabled}"*>  
    <iscomment>Stripe Payment Methods</iscomment>  
    <isinclude template=*"checkout/billing/stripe\_paymentmethods"*/>  
   <iselse/>  
    // Default Site Genesis / CC Saved Cards code  
   </isif>  
     
   
3. Add a check for Stripe enabled and, if so, reference the checkout/billing/stripe\_credit\_cardfields.isml include  
     
   <isif condition=*"${stripeEnabled}"*>  
    <iscomment>Stripe replacement CC fields</iscomment>  
    <isinclude template=*"checkout/billing/stripe\_creditcard\_fields"*/>  
   <iselse/>  
    // Default Site Genesis / CC form fields code  
   </isif>  
     
   

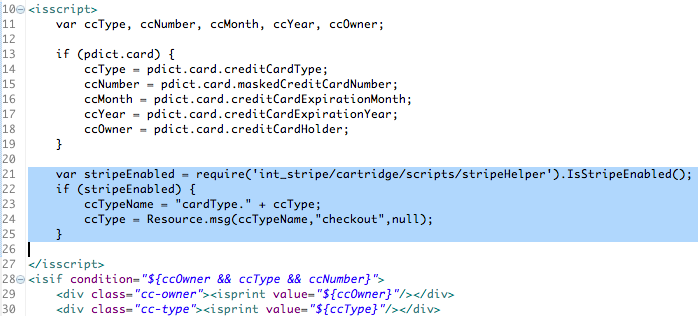
**Update account/payment/minidreditcard to read Stripe Names for Credit Card Types**

var stripeEnabled = require('int\_stripe/cartridge/scripts/stripeHelper').IsStripeEnabled();

if (stripeEnabled) {

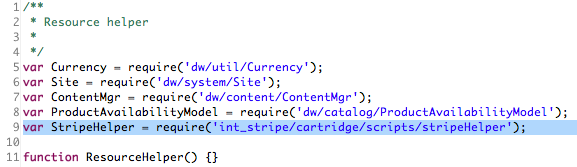
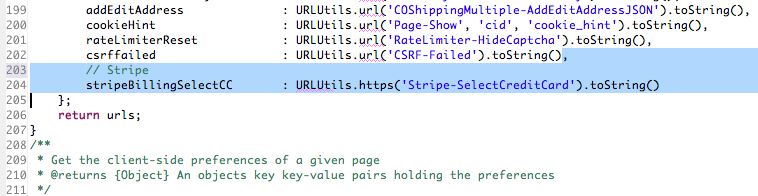
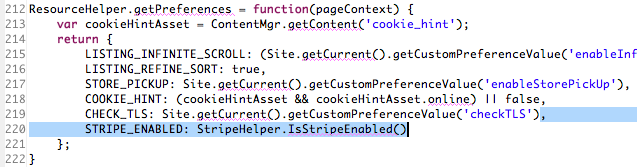
ccTypeName = "cardType." + ccType;

ccType = Resource.msg(ccTypeName,"checkout",null);

}  
  


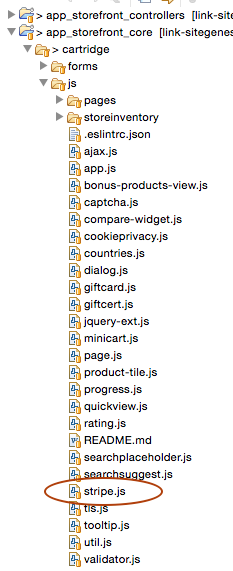
### Scripts

**Update util/Resource.ds with the following code**

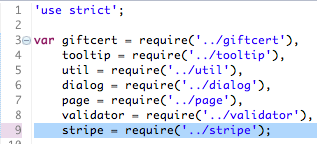
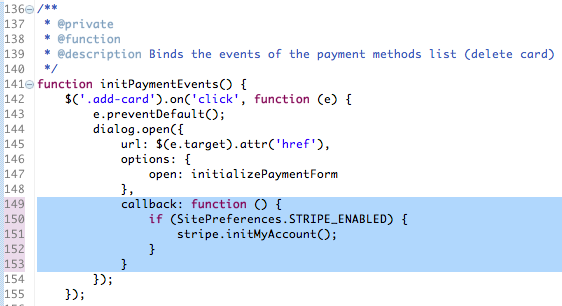
1. Add StripeHelper to the top require section  
     
   **var** StripeHelper = require('int\_stripe/cartridge/scripts/stripeHelper');  
     
   
2. Add the following code to add the stripeBillingSelectCC URL to the end of the urls section  
     
   // Stripe  
   stripeBillingSelectCC : URLUtils.https('Stripe-SelectCreditCard').toString()  
     
   
3. Add the following code to the end of the preferences section  
     
   STRIPE\_ENABLED: StripeHelper.IsStripeEnabled()  
     
   

### Javascript

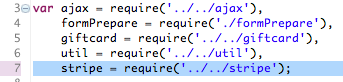
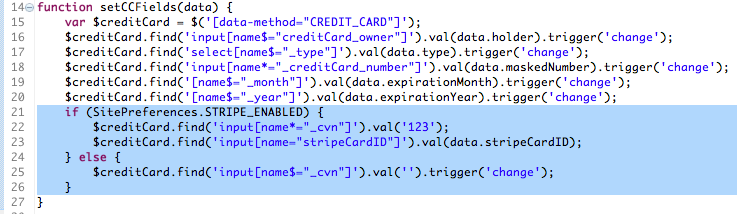
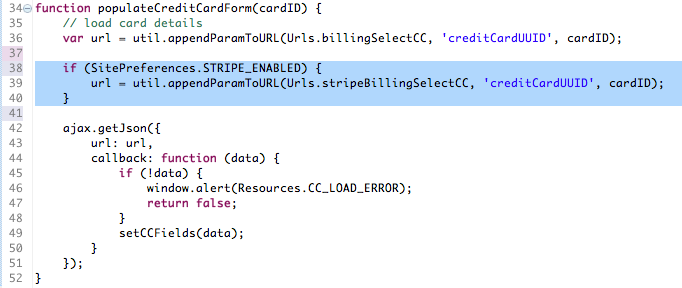
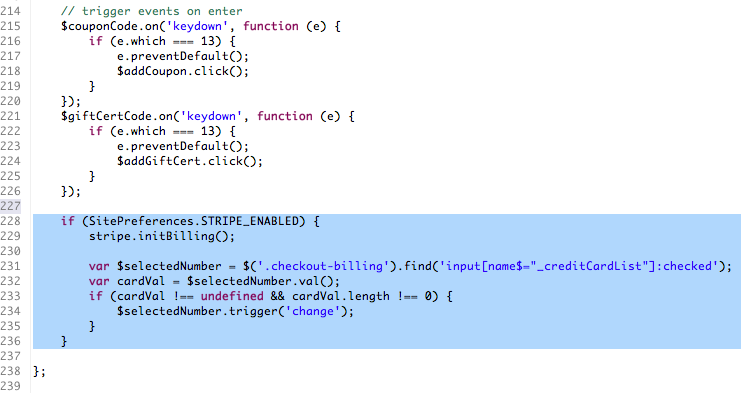
**Add custom Stripe javascript to the Storefront by copying js/stripe.js from the int\_stripe cartridge to the js/ folder of the Storefront Cartridge**



**Make the following updates to pages/account.js**

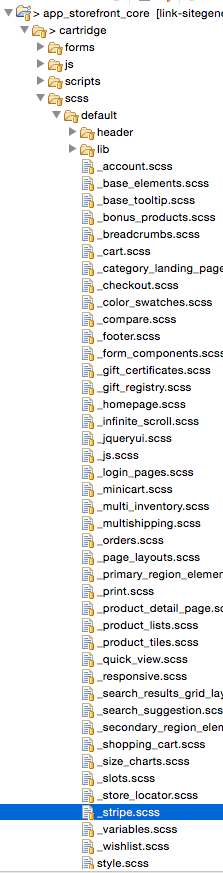
1. Add stripe object reference  
     
   stripe = require('../stripe');  
     
   
2. Add the following code to the initPaymentEvents() function  
     
   callback: **function** () {  
    **if** (SitePreferences.STRIPE\_ENABLED) {  
    stripe.initMyAccount();  
    }  
   }  
     
   

**Make the following updates to pages/checkout/billing.js**

1. Add stripe object reference to the require section  
     
   stripe = require('../../stripe');  
     
   
2. Update the setCCFields(data) function. Update the following code  
     
   $creditCard.find('input[name$="\_cvn"]').val('').trigger('change');  
     
   With:  
     
   **if** (SitePreferences.STRIPE\_ENABLED) {  
    $creditCard.find('input[name\*="\_cvn"]').val('123');  
    $creditCard.find('input[name="stripeCardID"]').val(data.stripeCardID);  
   } **else** {  
    $creditCard.find('input[name$="\_cvn"]').val('').trigger('change');  
   }  
     
   
3. Add the following code to the populateCreditCardForm() function  
     
   **if** (SitePreferences.STRIPE\_ENABLED) {  
    url = util.appendParamToURL(Urls.stripeBillingSelectCC, 'creditCardUUID', cardID);  
   }  
     
   
4. Add the following code to replace the //select credit card from list section in the exports.init function  
     
   // select credit card from list  
   $('#creditCardList','input[name$="\_creditCardList"]').on('change', **function** () {  
    **var** cardUUID = $(**this**).val();  
    **if** (!cardUUID) {**return**;}  
    **if** (SitePreferences.STRIPE\_ENABLED) {  
    **if** (cardUUID === 'newCard') {  
    stripe.clearCCFields();  
    $('.card-details').show();  
    **return**;  
    } **else** {  
    $('.card-details').hide();  
    }  
    }  
    populateCreditCardForm(cardUUID);  
    // remove server side error  
    $('.required.error').removeClass('error');  
    $('.error-message').remove();  
   });  
     
   
5. Add the following code to the end of the exports.init function  
     
   **if** (SitePreferences.STRIPE\_ENABLED) {  
    stripe.initBilling();  
    **var** $selectedNumber = $('.checkout-billing').find('input[name$="\_creditCardList"]:checked');  
    **var** cardVal = $selectedNumber.val();  
    **if** (cardVal !== **undefined** && cardVal.length !== 0) {  
    $selectedNumber.trigger('change');  
    }  
   }  
     
   

### CSS

Add \_stripe.scss styles to the storefront

1. Copy/paste int\_stripe/cartridge/scss/\_stripe.css to [storefront\_cartridge]/cartridge/scss/\_stripe.css  
     
   
2. Update [storefront\_cartridge]/cartridge/scss/style.scss to reference \_stripe.scss  
     
   // stripe  
   @import "stripe";  
     
   
3. At this point the styles can be customized to match any required site theming

## External Interfaces

<INTERFACES TO EXTERNAL SERVICES, E.G HTTP CLIENT, WEBSERVICE CALLS, DESCRIPTION OF REQUESTS AND RESPONSES>

Stripe functionality relies heavily on external calls to the Stripe services. All external interfaces use the Service Framework to communicate with the Stripe API.

Stripe Developer accounts are free to create. Most all communication with Stripe services are logged and easily accessible via the Stripe Dashboard. It is highly encouraged to use Stripe Dashboard to monitor and test the integration. <http://dashboard.stripe.com>

## Testing

*<SAMPLE DATA, TEST ACCOUNT, TEST CASES, REFERENCE TO CERTIFICATION REQUIREMENTS>*

All Stripe test data is available online via Stripe documentation: <https://stripe.com/docs/testing>. The Stripe testing page also includes a number of test Credit Card types and numbers for use in testing a wide variety of scenarios.

As stated previously, monitoring and testing the integration against the Stripe Dashboard is highly encouraged. <http://dashboard.stripe.com>

# Operations, Maintenance

## Data Storage

*<DESCRIBE ANY DATA THAT WILL BE STORED WITHIN DEMANDWARE, E.G. CUSTOM OBJECTS, INCLUDING DURATION AND CLEANUP JOBS IF APPLICABLE>*

<IS THERE A SEPARATE DATA STORAGE OUTSIDE OF DEMANDWARE, SPECIFY LOCATION AND DURATION IF APPLICABLE>

The Stripe LINK cartridge extends Demandware to store several data points.

**Customer Profile**: Stripe Customer ID, used to retrieve information about the customer’s Stripe account.

**Custom Site Preferences**: noted in detail above.

The Stripe LINK cartridge does work to remove any PCI data that may otherwise be stored on the DWRE system through use of Stripe.js tokenization and custom code to keep credit card data from being submitted to the DWRE servers.

## Availability

<EXPECTED AVAILABILITY /UPTIME OF ANY EXTERNAL SERVICE, INTERFACES>

<FALLBACK SOLUTION, BEHAVIOR IF EXTERNAL SERVICES ARE NOT AVAILABLE, IMPACT ON CUSTOMER STOREFRONT>

<ANY EXISTING UTILITIES THAT HELP TO DETECT AVAILABILITY/UPTIME OF EXTERNAL SERVICE, E.G. WEBSERVICE CALL, GOMEZ PING>

<ESTIMATED PERFORMANCE METRICS FOR PEAK BUSINESS HOURS IF AVAILABLE>

<NOTIFICATION PROCESS IF EXTERNAL SERVICES, INTERFACES ARE NOT RESPONDING, E.G. HOTLINE /SUPPORT PHONE NUMBER>

Please refer to the Stripe Service Level Agreement to determine specific up-times for the service. In case the service fails, there is no fail-over to allow transactions to proceed. Users will instead be provided with friendly error messaging.

## Support

<CONTACT PERSON IN CASE DEFECT FIXES OR IMPROVEMENTS FOR COMPONENT ARE REQUIRED>

For defects or recommendations on improvements, please contact Stripe Support.

# User Guide

## Roles, Responsibilities

*<LIST RECURRING TASKS THAT NEED TO BE FULFILLED BY CUSTOMER, MERCHANT TO RUN THE INTEGRATION, E.G. MANUAL FEED OF CATALOG DATA INTO 3RD PARTY SERVICE, IF APPLICABLE>*

There are no recurring tasks required by the merchant. Once configurations and job schedules are set up, the functionality runs on demand.

## Business Manager

<UI SCREENSHOTS AND DESCRIBTION OF FUNCTIONALITY>

<DESCRIBE NEW BUSINESS MANAGER MODULES AND CONFIGURATION OPTIONS IF APPLICABLE>

Business Manager settings and configuration notes are described in detail in the Configurations section.

## Storefront Functionality

*<DESCRIBE NEW STOREFRONT FUNCTIONALITY>*

### Credit Card Tokenization

Stripe.js credit card tokenization requires the inclusion of javascript on the payment forms, both during Checkout > Billing as well as My Account > Saved Payment Instruments. Additionally, the credit card ‘type’ form field are

### Saved Credit Cards

When an authenticated customer selects a saved credit card on the Checkout > Billing page, they will see a list of their Stripe-saved Sources as radio buttons rather than the default SiteGenesis <select/> options.

# Known Issues

*<LIST KNOWN ISSUES AND WORKAROUNDS>*

The LINK Cartridge has no known issues.

# Release History

<RELEASE HISTORY OF THE COMPONENT; THIS DOCUMENT IS PART OF THE COMPONENT AND DOES NOT HAVE ITS OWN RELEASE/VERSION NUMBER.>

*<PLEASE USE THE FOLLOWING NAMING SCHEMA: CHANGES TO THE 1ST DIGIT CONTAIN INCOMPATIBILITIES, CHANGES TO THE 2ND DIGIT PROVIDE NEW MINOR FEATURES WITHOUT CAUSING INCOMPATIBILITY, A CHANGE TO THE 3RD DIGIT PROVIDES BUG FIXES WITHOUT INTRODUCING NEW FEATURES>*

|  |  |  |
| --- | --- | --- |
| **Version** | **Date** | **Changes** |
| 16.1.0 | <DATE> | Initial release |