

PayPal as a Payment Option: Express Checkout

For Professional Use Only Currently only available in English.

A usage Professional Uniquement Disponible en Anglais uniquement pour l'instant.

Last Updated: October 2006



Contents

Chapter	P Preface
	This Document
	Intended Audience
	Organization of This Document
	Notational Conventions
	Documentation Problems
	Revision History
	Get Started Quickly: Integration Center
Chapter	1 Express Checkout Overview
	What Is Express Checkout?
	How It Works
	Availability
	Compatibility
	Funding Sources
Chapter	2 PayPal Button Placement Requirements, Page Designs, and Programming Flow-of-Control17
	HTML for PayPal Button Graphics
	Examples of Button Placement
	Relation of Button to API Call: SetExpressCheckout and Redirect to PayPal
	Design Variation: Eliminating Your Order Review
	Payment Method Page Layout Recommendations
	Page Behavior When PayPal Is Selected
	Express Checkout Programming Flow-of-Control
Chapter	2
Chapter	3 How Express Checkout Works
	Relationship to Authorization & Capture
	Step 1a: Customer Selects PayPal on Your Website

	Step 1b: Integration Point 1
	Usage Notes About SetExpressCheckout Elements
	Transferring Your Customer to PayPal
	Step 2a: Customer Approves Use of PayPal
	Step 2b: Customer Returns to Your Website
	Step 2c: Integration Point 2
	ReturnURL, CancelURL, and the Express Checkout Token
	Usage Notes About GetExpressCheckoutDetails Elements
	Step 3a: Customer Completes Order
	Step 3b: Integration Point 3
	Usage Notes About DoExpressCheckoutPaymentRequest Elements 40
	Step 4: Customer Notified Order Is Complete
Chapter	4 How Authorization & Capture Works
	Fundamental Authorization Process With the APIs
	Honor Period and Authorization Period
	Order Authorizations Scenarios
	Simple Order
	Complex Order
	Concurrent Authorizations
	Total Capture Hits Relative Tolerance With Open Authorizations
	Void Authorizations
	Partial Capture
	Complete Capture
	Optimal Buyer Experience
	Capturing Funds on Basic Authorizations
	Buyer Approval for Basic Authorizations
	Voiding Basic Authorizations
Chapter	5 Frequently Asked Questions About Express Checkout 57
	Why should the PayPal Express Checkout button go at the beginning of the checkout? 57
	What if my customer needs to enter a new shipping address or edit shipping information?. 57
	What's maximum difference between the estimated OrderTotal and the final OrderTotal? . 58
	Question
	Answer
	What if I send my customer to PayPal but he changes his mind?
	What if my customer approves use of PayPal but does not purchase my product? 59
	, and the second of the second

Contents

At Integration Point 2, am I guaranteed that the payment w	vill be successful?	59
Question		59
Answer		59
Can I simply add PayPal's username and password fields t	to my website?	59

Contents

List of Tables

Table P.1	Revision History	13
Table 2.1	PayPal Button Placement and Rules	17
Table 2.2	Express Checkout Program Flow-of-Control and Integration Points	23
Table 3.1	Steps in Integrating Express Checkout	26
Table 3.2	SetExpressCheckoutRequest Usage Notes	29
Table 3.3	SetExpressCheckoutResponse Usage Notes	31
Table 3.4	GetExpressCheckoutDetailsResponse Usage Notes	35
Table 3.5	Shipping, Billing and Order Total Usage	38
Table 3.6	DoExpressCheckoutPaymentRequest Usage Notes	40
Table 4.1	PayPal Products Supporting Authorization & Capture	48
Table 4.2	Simple Order Scenario	49
Table 4.3	Complex Order Scenario	50
Table 4.4	Concurrent Authorizations Scenario	50
Table 4.5	Total Capture Hits Relative Tolerance with Open Authroziations Scenario	51
Table 4.6	Void Authorizations Scenario	52
Table 4.7	Partial Capture Scenario	53
Table 4.8	Complete Capture Scenario	53

List of Figures

Figure 2.1	Payment Methods: PayPal as Unique Choice 20
Figure 2.2	Payment Methods: Horizontal Design
Figure 2.3	Payment Methods: Pulldown SELECT List
Figure 2.4	Express Checkout Flow-of-Control
Figure 3.1	Generalized Customer Checkout
Figure 3.2	PayPal Express Checkout Button Before Shipping Address Information 27
Figure 3.3	Express Checkout Integration Point 1
Figure 3.4	PayPal Login Page
Figure 3.5	PayPal Review Page
Figure 3.6	Express Checkout Integration Point 2
Figure 3.7	Example of Order Review Page
Figure 3.8	Express Checkout Integration Point 3
Figure 3.9	Example of Order Complete Page

Preface

This Document

This document describes PayPal Express Checkout.

Intended Audience

This document is written for merchants, resellers, and sellers who wish to implement a powerful and dynamic customer-centric checkout process for their website.

Organization of This Document

Chapter 1, "Express Checkout Overview," describes what Express Checkout is, who can use it, what developers need to know to make it work, and why it is the perfect checkout solution for your website.

Chapter 2, "PayPal Button Placement Requirements, Page Designs, and Programming Flow-of-Control," details guidelines for placing PayPal logo graphics on your website, variations on those guidelines, and special considerations in integrating Express Checkout in some cases of the customer experience.

Chapter 3, "How Express Checkout Works," is a detailed, step-by-step explanation of how Express Checkout works and how it can be integrated into your checkout process.

Chapter 4, "How Authorization & Capture Works," details the basics of using Authorization & Capture APIs.

Notational Conventions

This document uses typefaces to identify the characteristics of text. These typefaces and the characteristics they imply are described below:

Typeface	How Used		
serif italics	A document title.		
	A term being discussed or defined.		
	For example: A file is a readable or writable stream of characters		
	Boolean values (not keywords).		
	For example: The function returns true if it encounters an error.		
monospaced	Pathnames or file names that appear in body text frames.		
	Code-related names that appear in body text frames. Such names are used for functions, callbacks, arguments, data structures, and fields.		
	For example: AbstractResponseType is the SOAP response type definition on which all PayPal API response methods are based.		
	Components of Internet protocol requests and responses, such as HTTPS and FORM variables.		
	For example: The PayPal system uses a method=POST request to return IPN status variables related to subscriptions, such as txn_type.		
Serif bold	User interface names, such as window names or menu selections.		
	For example: On the Profile page, click Email to confirm your email address.		
San-serif oblique	Placeholders used in the context of a format or programming standard or formal descriptions of PayPal system syntax. Placeholders indicate values or names that the reader should provide.		
	Example: For example, amount is the variable for a single-item shopping cart, but amount <i>X</i> is the name of the variable for a multi-item shopping cart. amount _3 is the item amount for the third item in a multiple-item shopping cart.		

To convey additional information, this document may also apply color and underlining to words or phrases that use the typefaces described above. Such use is described below:

Text attribute	How Used
XXXXXX	Hypertext link to a page in the current document or to another document in the set.
xxxxxx	Hypertext link to a URL or that initiates a web action, such as sending mail.

Documentation Problems

If you discover any errors in or have any problems with this documentation, please email us by following the instructions below. Describe the error or problem as completely as possible and give us the document title, the date of the document (located at the foot of every page), and the page number or page range.

To contact Customer Service about documentation problems:

- 1. Go to https://www.paypal.com/.
- 2. Click **Help** in the upper right corner of the page.
- 3. Click Contact Us in the lower left of the page.
- 4. Choose Help by Email.
- **5.** Complete the form.

Revision History

Revision history for PayPal as a Payment Option: Express Checkout.

TABLE P.1 Revision History

Date	Description
October 2006	New button placement requirements. New PayPal Checkout button graphic.
September 2006	 Description of the useraction variable that can be used on the redirection of the user's browser to PayPal after SetExpressCheckout to control the text of the final button displayed on the PayPal site. All information about the SOAP APIs for Express Checkout and Authorization & Capture has been moved to the SOAP API Developer Reference.
August 2006	Miscellaneous minor corrections
July 2006	Miscellaneous minor corrections
January 2006	Additional API error messages for Express Checkout: 10445, 10446.
December 2005	Removed erroneous description that stated that the SetExpressCheckoutRequest field cpp-header-image must be URL-encoded.

Get Started Quickly: Integration Center

PayPal's Integration Center at https://www.paypal.com/integration has step-by-step details for getting started with the PayPal Software Development Kits (SDKs), Website Payments Pro, Express Checkout, Website Payments Standard, Authorization & Capture, Instant Payment Notification, and more.

Visit the Integration Center at:

https://www.paypal.com/integration

Express Checkout Overview

The more convenient it is for your customers to buy from you, the more they'll buy. Express Checkout allows customers the option to pay quickly through PayPal – and gives your business more benefits:

- Give buyers more convenience, and get more sales.
 Since your customers simply log in to use information they've already entered with PayPal, they save time by completing transactions in fewer steps. This helps increase loyalty and sales.
- Complete sales on your website, and get more upsell opportunities.

 Buyers finish their orders on your website. This gives you more advertising opportunities.
- Help customers feel safer, so they buy more.
 Buyers prefer to pay with PayPal because their customer information is kept safe. When they're confident about the security of their information, they purchase more.

What Is Express Checkout?

- Express Checkout allows your customers to complete transactions in very few steps. It lets them use shipping and billing information stored securely at PayPal to check out, so they don't have to re-enter it on your site.
- Express Checkout gives you the flexibility to put PayPal first in your checkout process or on your billing page with other payment options.
- It's an API-based feature that can be used along with the PayPal Direct Payment API, which lets you process credit cards directly on your website.

How It Works

- 1. After selecting products to purchase, your customers click Checkout with PayPal on your website.
- 2. They're transferred to PayPal, where they select their payment method, as well as the correct shipping and billing address, then are returned to your website to complete their purchase.

3. PayPal automatically gives you the shipping address, email, and other customer information needed to fulfill your order.

With Express Checkout, your buyers finish their orders on your website, not PayPal's, so you can:

- Get real time notification of successful payments.
- Automate your internal business processes.
- Ensure buyers make it to your final confirmation page.
- Be notified that the buyer's address is confirmed, and ensure you're eligible for coverage under PayPal's Seller Protection Policy.

Availability

All PayPal business and premier account holders are eligible to implement PayPal Express Checkout on their websites. You can use Express Checkout to accept payment from both current PayPal account holders and from customers who sign up for PayPal during your checkout process.

Note: If a customer does not have a PayPal account but wants to pay with PayPal, the customer must sign up for a PayPal account. After signup, PayPal returns the customer to your website.

Compatibility

Express Checkout works with many other PayPal products, such as Instant Payment Notification, Settlement System, Downloadable History Log, Authorization & Capture, and more.

Funding Sources

With Express Checkout, you can accept all major credit cards, debit cards, bank transfers, and PayPal balance payments.

PayPal Button Placement Requirements, Page Designs, and Programming Flow-of-Control

IMPORTANT: When you offer PayPal Express Checkout to your customers, you are required display it in two forms, for your customers' best buying experience:

- 1. PayPal as a Checkout Choice on your shopping cart page
- 2. PayPal as a Payment Method

TABLE 2.1 PayPal Button Placement and Rules

	Placement	PayPal Button Graphic	Requirements
1.	PayPal as a Checkout Choice	Checkout PayPal Fast, easy, secure.	Place the PayPal Checkout button on your cart page, aligned with any other checkout buttons.
2.	PayPal as a Payment Method	PayPal	 Place the PayPal Acceptance Mark graphic: On your Payment Method page. On your home page, along with credit card logos, if applicable.

HTML for PayPal Button Graphics

You can get HTML for the Express Checkout button and PayPal Acceptance Mark from the following location:

 $\underline{https://www.paypal.com/express-checkout-buttons}$

IMPORTANT: Rather than storing the button graphics on your own server, use the PayPal-provided image paths for the graphics to reassure your customers that the checkout is secure and that you are displaying the most up-to-date logos from PayPal.

Examples of Button Placement

Here are some examples of proper placement:

1. PayPal as a Checkout Choice and as a payment mark



2. PayPal as a Payment Method



You can choose from several design variations for PayPal as a Payment Method. See "Payment Method Page Layout Recommendations."

Relation of Button to API Call: SetExpressCheckout and Redirect to PayPal

Both button graphics must make a call to the SetExpressCheckout API. See the <u>PayPal SOAP</u> <u>API Reference</u> for full programming details about SetExpressCheckout.

After the response from SetExpressCheckout, you must redirect the customer's browser to PayPal. The SetExpressCheckout response includes an Express Checkout session token. Add the value of the Token from the SetExpressCheckout response as a name/value pair to the following URL, and redirect your customer's browser to it:

https://www.paypal.com/cgibin/webscr?cmd= express-checkout&token=*value_from_SetExpressCheckoutResponse*

Note: Express Checkout has a variation on this redirect URL (called "user action") that allows you to bypass calling the second API (GetExpressCheckoutDetails) and to change the text of the final button displayed on PayPal. See "Design Variation: Eliminating Your Order Review" on page 19.

Recommendation for Browser Redirection

For redirecting the customer's browser to the PayPal URL, PayPal recommends that you use the HTTPS response 302 "Object Moved" with the PayPal URL as the value of the Location header in the HTTPS response. Ensure that you use an SSL-enabled server to prevent browser warnings about a mix of secure and insecure graphics.

Design Variation: Eliminating Your Order Review

If your normal checkout includes displaying Payment Methods page towards its end, you do not need to display that Payment Method page after the customer returns from PayPal to your site, because it is superfluous. The customer has already selected PayPal to pay you.

You can make the checkout appear to complete on the PayPal site, not your own, and entirely bypass your own order review page. (After the customer returns from the PayPal site, you must call the DoExpressCheckoutPayment API to actually complete the transaction.) For example, if you do not want to display an "Order Review" page on your site after the customer returns from PayPal, you want the button text on PayPal to read **Pay**.

You control the text of the button displayed on the PayPal site with the useraction variable on the PayPal URL to which you redirect the customer after SetExpressCheckout:

- If useraction is not set or useraction=continue: PayPal displays a Continue Checkout button on its site.
- useraction=commit: PayPal displays a Pay button on its site.

Here are the discrete steps for using useraction:

1. Get the token from the response from SetExpressCheckout.

The response from SetExpressCheckout is the buyer's token. For example, if the value of ReturnURL on SetExpressCheckout is https://www.mybiz.com/snagECvalues, the URL to which PayPal redirects looks like this:

https://www.mybiz.com/snagECvalues?token=EC-0W8920957N684880R

2. Add the token and the desired useraction as a name/value pairs to the following URL, and redirect your customer's browser to it:

https://www.paypal.com/cgi-bin/webscr?cmd=_express-checkout&token=valueFrom SetExpressCheckoutResponse&useraction=continue_Or_commit

Payment Method Page Layout Recommendations

When you display the PayPal Acceptance Mark with other payment methods, you have several designs to choose from:

- As a radio button
- As horizontal fields
- In a pulldown SELECT list

IMPORTANT: Do not preselect any payment method. Allow the customer to make a choice without any default.

As a radio button:

FIGURE 2.1 Payment Methods: PayPal as Unique Choice



As horizontal option fields:

FIGURE 2.2 Payment Methods: Horizontal Design



As a pulldown SELECT list:

FIGURE 2.3 Payment Methods: Pulldown SELECT List



Page Behavior When PayPal Is Selected

When your customer selects PayPal as a Payment Method, for the best buying experience, you should:

- Use JavaScript to hide or disable credit card fields and billing address fields, because prompting for this information is irrelevant when a customer pays with PayPal.
- If other fields such as coupon code or gift certificate are on the page, still display them so your customer can fill them out before being redirected to PayPal.
- Change the function of the "Continue Checkout" button to call the SetExpressCheckou APIt and redirect the customer to PayPal.

Express Checkout Programming Flow-of-Control

Your page design triggers PayPal Express Checkout API calls. Here is how the Express Checkout API calls work. For precise details about the fields and values of the Express Checkout API calls, see "Express Checkout API" in the <u>SOAP API Reference</u>.

- 1. Preparatory indication to PayPal that you intend to use Express Checkout for the payment for the customer's order: SetExpressCheckout.
- 2. Redirecting the customer to the PayPal website.
- **3.** Getting details from PayPal about this customer (such as shipping address) and optionally allowing the customer to edit these details during the order review: GetExpressCheckoutDetails.
- 4. Making the payment transaction with DoExpressCheckoutPayment at the end of checkout, in one of two forms:
- As the complete amount of a final sale
- As an authorization for a total amount that you must capture later with Authorization & Capture

FIGURE 2.4 Express Checkout Flow-of-Control

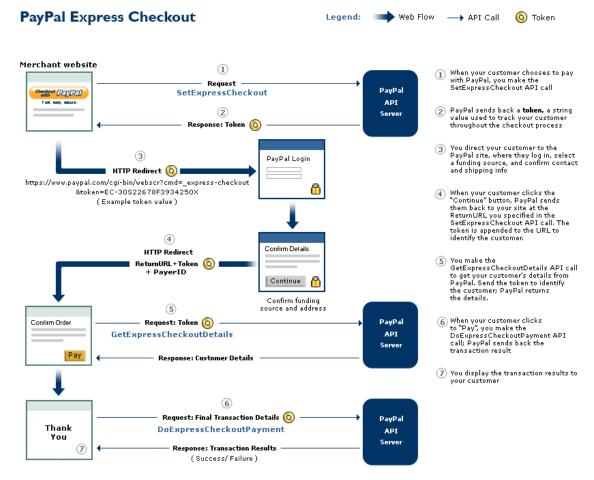


TABLE 2.2 Express Checkout Program Flow-of-Control and Integration Points

	Customer	Merchant	PayPal
1	Clicks Checkout with PayPal button.	Calls SetExpressCheckout API with the required fields – estimated OrderTotal, ReturnURL, and CancelURL – and optional fields, such as MaxAmount.	
			2. Returns SetExpressCheckout response with Token and appends the values of Token and PayerID to your return URL.
		3. Adds value of element Token from SetExpressCheckout response as a name/value pair to the following URL, and redirects the user's browser to it:	
		https://www.paypal.com/cgi-bin/webscr?cmd=_	_express-checkout&token= <i>value</i>
	Logs in to PayPal, approves the use of PayPal, and clicks Continue or Pay.		4. With a GET, redirects user's browser to merchant's ReturnURL with token value appended.
		5. Optionally calls GetExpressCheckoutDetails API with Token to retrieve customer's information.	Returns GetExpressCheckoutDetails response with PayerID, email address, shipping address, confirmed or unconfirmed status of that shipping address, and other details.
		Renders page in customer's browser for the next step in checkout process, such as your "Order Review" page.	
	Clicks "Confirm Order" button	6. Calls DoExpressCheckoutPayment API with the required elements Token, OrderTotal, PaymentAction, and PayerID returned by GetExpressCheckoutDetails response.	Returns payment info with important TransactionID value and other details about the payment.

How Express Checkout Works

PayPal Express Checkout is a combination of the checkout process on your website, PayPal login and review pages on https://www.paypal.com, and PayPal Web Services API SOAP requests/responses.

To explain how Express Checkout works, this chapter presents a generalized checkout process and details how Express Checkout can be implemented with it. This generalized checkout process, which might differ from your own, is shown in Figure 3.1, "Generalized Customer Checkout." Each numbered step in the diagram coincides with what this guide refers to as Express Checkout Integration Points 1, 2, and 3.

The Integration Points occur in the following sequence. Your customer always starts and completes his order on your website.

- 1. When a customer clicks **Checkout with PayPal**, he is transferred to PayPal to log in.
- 2. The customer then selects a shipping address and payment method and approves the use of PayPal.
- **3.** PayPal then returns the customer to your website to review and finalize the order.

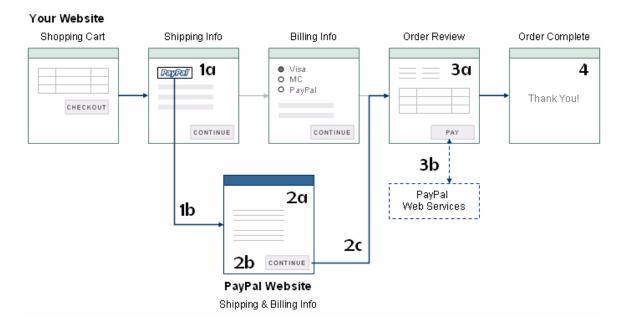


FIGURE 3.1 Generalized Customer Checkout

At each Integration Point, you must set certain required API element values, and you can affect the behavior and usefulness of Express Checkout by setting optional elements.

Relationship to Authorization & Capture

PayPal assumes that at the end of the checkout process, you will make a final sale and payment transaction via PayPal. If at point of sale you do not know the complete cost of the order—for example, if shipping, handling, and tax is not precisely known, or if you want to upsell—you can authorize a transaction that you capture later with Authorization & Capture.

For more information about Authorization & Capture, see Chapter 4, "How Authorization & Capture Works."

Step 1a: Customer Selects PayPal on Your Website

PayPal recommends that you place the Express Checkout button on your website before your customers are required to enter their shipping and billing information, as shown in Figure 3.2, "PayPal Express Checkout Button Before Shipping Address Information."

FIGURE 3.2 PayPal Express Checkout Button Before Shipping Address Information



Note: Your customer always reviews transaction details and makes the final payment on your website. PayPal handles the payment verification and passes you the customer's

How Express Checkout Works

Step 1b: Integration Point 1

Usage Notes About SetExpressCheckout Elements

The following is important usage information about some of the required or optional elements in the first SOAP request for Express Checkout. For complete details about all elements, see "SetExpressCheckout" in the <u>SOAP API Reference</u>.

TABLE 3.2 SetExpressCheckoutRequest Usage Notes

Element	Required or Optional ?	Notes
OrderTotal	Required	The total estimated cost of the order to the customer. If shipping and tax charges are known, include them in OrderTotal; if not, OrderTotal should be the current subtotal of the order.
MaxAmount	Optional	The expected maximum total amount of the complete order, including shipping and tax charges. PayPal uses an adjusted OrderTotal to determine which funding sources it can authorize for use by the customer. PayPal business logic calculations account for the fact that shipping and tax will likely be added to the OrderTotal before the customer completes the purchase. MaxAmount is additional information for PayPal's business logic to properly calculate the customer's available funds for your unique circumstances. If OrderTotal is the final amount, set MaxAmount equal to OrderTotal. Note: If the final OrderTotal sent with the
		DoExpressCheckoutPaymentRequest (the final PayPal Express Checkout API) exceeds the value of MaxAmount, the payment will still be successfully processed.
ReturnURL	Required	URL to which the customer's browser is returned after approving use of PayPal. PayPal recommends that the value of the required ReturnURL element be the final review page on which the customer confirms the order and payment. The value of your ReturnURL must always assume GET as the FORM METHOD, just as if the value were to be included in a FORM. That is, your ReturnURL must expect to read from the QUERY_STRING environment variable, not from standard input. For your programmatic control on the redirect of the customer's browser to your website, the value of ReturnURL can include any name/value pairs your programs require.

How Express Checkout Works

Step 1b: Integration Point 1

e

TABLE 3.2 SetExpressCheckoutRequest Usage Notes

Element	Required or Optional ?	Notes
cpp-header- image	Optional	A URL for the image you want to appear at the top left of the payment page. The image has a maximum size of 750 pixels wide by 90 pixels high.
		Note: PayPal recommends that you provide an image from a secure (https) server. If the image is not on a secure server, when the customer's browser is redirected to the PayPal website, the customer will see a message about potential security risks (a mixture of secure and insecure items). This message might intimidate some customers from continuing with their purchase.
		In Figure 3.4, "PayPal Login Page" on page 32, the DesignerFotos image beneath the PayPal logo demonstrates how a cpp-header-image appears.
		For more information about custom payment pages, see the <u>Website</u> <u>Payments Standard Integration Guide</u> .
Custom	Optional	The optional Custom element is a <i>passthrough variable</i> . Its value is returned verbatim on the final PayPal Express Checkout API, DoExpressCheckoutPaymentResponse. You can use this value for whatever purpose you desire, such as an accounting tracking number or additional data needed by your programs (for example, a session-id or other variable).

TABLE 3.3 SetExpressCheckoutResponse Usage Notes

Element	Notes
Token	A timestamped token by which you identify to PayPal that you are processing this payment with Express Checkout.
	NOTE: The token expires after three hours.

Transferring Your Customer to PayPal

After you receive a successful response from PayPal, you should add the value of the Token from SetExpressCheckoutResponse as a name/value pair to the following URL, and redirect your customer's browser to it:

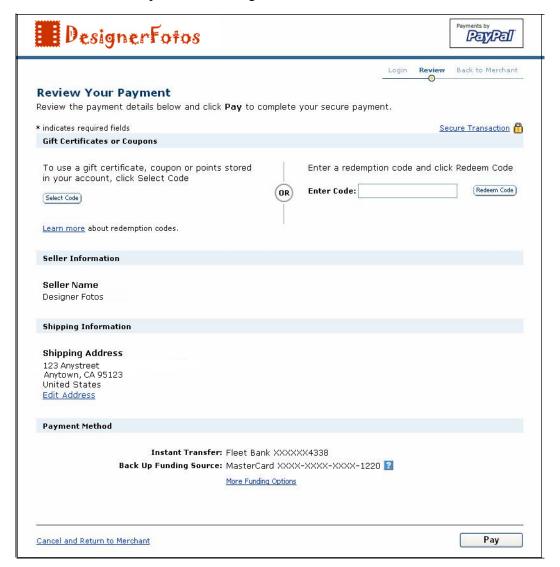
https://www.paypal.com/cgibin/webscr?cmd= express-checkout&token=value_from_SetExpressCheckoutResponse

Express Checkout has a variation on this redirect URL that allows you to bypass calling the second API (GetExpressCheckoutDetails) and to change the text of the final button displayed on PayPal. See "Design Variation: Eliminating Your Order Review" on page 19.

How Express Checkout Works

Step 2a: Customer Approves Use of PayPal

FIGURE 3.5 PayPal Review Page



The customer then:

1. Can review his default funding source and shipping address, select other funding sources or shipping address already saved on PayPal, or enter new ones.

Note: PayPal returns your customer to the ReturnURL specified by you in SetExpressCheckoutRequest. If the customer clicks the Cancel button, PayPal returns him to the CancelURL specified in the SetExpressCheckoutRequest.

- 2. Clicks Pay to approve the use of PayPal.
- **3.** Returns to your website to complete the purchase.

How Express Checkout Works

Step 2b: Customer Returns to Your Website

ReturnURL, CancelURL, and the Express Checkout Token

PayPal appends the name/value pair token=tokenValue to the value of your ReturnURL and CancelURL. For example, if you set ReturnURL as follows:

https://www.newco.com/ourcheckout

PayPal changes the value as follows:

https://www.newco.com/ourcheckout?token=tokenValue

Similarly, if your ReturnURL value already has name/value pairs, like the following:

https://www.newco.com/ourcheckout?cartid=1234

PayPal prefixes the appended token with the name/value pair delimiter, like this:

https://www.newco.com/ourcheckout?cartid=1234&token=tokenvalue

Once the customer arrives at this ReturnURL, you need to send the GetExpressCheckoutDetailsRequest with the Token value provided in SetExpressCheckoutResponse. PayPal then sends you a response with your customer's transaction information.

For a list of all elements in GetExpressCheckoutDetailsResponse, see the <u>SOAP API</u> <u>Reference</u>.

Usage Notes About GetExpressCheckoutDetails Elements

The following outlines usage information for some of the important elements sent in this response.

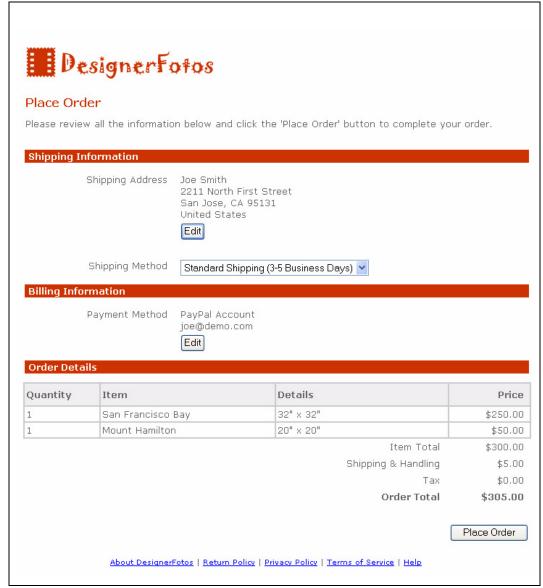
TABLE 3.4 GetExpressCheckoutDetailsResponse Usage Notes

Element	Notes
Payer	Email address of the payer.
PayerID	Unique PayPal customer account number.
	You must provide this value with
	DoExpressCheckoutPaymentRequest.
PayerStatus	The payer's PayPal account status.
	A value of Verified means that the customer has confirmed ownership of a bank account or has verified his account status through other means.
FirstName	The payer's name.
LastName	

How Express Checkout Works

Step 3a: Customer Completes Order

FIGURE 3.7 Example of Order Review Page



PayPal recommends that you alter your order review page as follows. Figure 3.7, "Example of Order Review Page" on page 37 is an example of a page that has been altered to reflect these

Step 3b: Integration Point 3



FIGURE 3.8 Express Checkout Integration Point 3

Integration Point 3 consists of the following events and actions:

- The customer clicks the "Place Order" button on your website.
- You send the DoExpressCheckoutPaymentRequest to PayPal.
- PayPal returns the DoExpressCheckoutPaymentResponse.
- You redirect the customer to your "Order Confirmation" page.

Step 3b: Integration Point 3

TABLE 3.6 DoExpressCheckoutPaymentRequest Usage Notes

Element	Required or Optional ?	Notes
Order Description	Optional	The description you want to appear on the customer's transaction receipt from PayPal and on PayPal's Transaction Details page. PayPal recommends that you include your order number for this purchase if one is available.
PaymentDetail sItem • Name • Number • Amount • Quantity • SalesTax Payment Details • ItemTotal • TaxTotal	Payment Details Item is optional. Payment Details is required.	If you send details about each item, they are included in the customer's transaction receipt from PayPal and on PayPal's Transaction Details page. Providing this information allows your customer to review the purchase information in his PayPal account details, can remind your customer about the purchase details, and might decrease the likelihood that your customer will mistakenly file a chargeback. The following rules apply to the PaymentDetailsItem elements: 1. If you set PaymentDetailsItem.Name, you must also send PaymentItem.Amount. 2. If you set PaymentDetailsItem.Amount, the sum of (PaymentDetailsItem.Amount x PaymentDetailsItem.Quantity) for all payment items must equal PaymentDetails.Item.SalesTax, the sum of (PaymentDetailsItem.SalesTax x PaymentDetailsItem.Quantity) for all payment items must equal PaymentDetails.TaxTotal.
ShipToAddress	Optional	If you allow the customer to enter or edit shipping information on your website, you should pass your customer's shipping address to PayPal. Note: If you are using the shipping address PayPal returned to you with GetExpressCheckoutDetailsResponse, do not pass this address back to PayPal on DoExpressCheckoutPaymentRequest. Note: PayPal recommends that, whenever possible, you allow your customer to use the shipping address stored by PayPal. Doing so helps your customer complete the checkout more quickly and allows PayPal to provide you with the shipping AddressStatus in GetExpressCheckoutDetailsResponse.

Step 4: Customer Notified Order Is Complete

How Authorization & Capture Works

Authorization & Capture is a settlement solution that provides merchants increased flexibility in obtaining payments from their buyers. During a traditional sale at PayPal, the authorization and capture action is completed simultaneously. Authorization & Capture separates the authorization of payment from the capture of the authorized payment.

Authorization & Capture is for merchants who have a delayed order fulfillment process and who typically make a \$1 auth at checkout. It enables merchants to modify the original authorization amount due to order changes occurring after the initial order is placed (such as taxes, shipping, or item availability). This chapter discusses the authorization and capture process and provides steps to help you authorize, capture, reauthorize, and void funds.

There are two ways to use Authorization & Capture:

- **1.** Use the Authorization & Capture Application Programming Interface (API), which is discussed discussed here and detailed in the *PayPal SOAP API Reference*.
- 2. Create an order or authorization with Website Payments Standard HTML and capture or void the authorization on the PayPal website (https://www.paypal.com/). This topic is not discussed here. For more information about the Authorization & Capture and Website Payments Standard, see the Website Payments Standard Integration Guide

Fundamental Authorization Process With the APIs

Authorization & Capture starts when your buyer authorizes a payment amount during checkout.

- 1. For example, you can use the PayPal Express Checkout API with the <PaymentAction> element set to Authorization or Order.
- **2.** After your buyer completes checkout, you can then use the payment's transaction ID with Authorization & Capture APIs. You can:
 - Capture either a partial amount or the full authorization amount.
 - Authorize a higher amount, up to 115% of the originally authorized amount (not to exceed an increase of \$75 USD).
 - Void a previous authorization.

Honor Period and Authorization Period

When your buyer approves an authorization, the buyer's balance can be placed on hold for a 29-day period to ensure the availability of the authorization amount for capture. You can

reauthorize a transaction only once, up to 115% of the originally authorized amount (not to exceed an increase of \$75 USD).

After a successful reauthorization, PayPal honors 100% of authorized funds for three days. A day is defined as the start of the calendar day on which the authorization or reauthorization was made (from 12AM PST to 11:50PM PST).

You can settle without a reauthorization from day 4 to day 29 of the authorization period, but PayPal cannot ensure that 100% of the funds will be available after the three-day honor period. However, PayPal will not allow you to capture funds if the buyer's account is restricted, locked, or a fraudulent case occurs, or if your account has a high restriction level. You can use Authorization & Capture only when your account has a low restriction level.

The honor period and authorization period for authorizations is described below:

If you attempt to capture funds outside the honor period, PayPal applies best efforts to capture funds. However, there is a possibility that funds will not be available at that time.

Buyer and seller accounts cannot be closed if there is a pending (unsettled) authorization.

Supported PayPal Payment Products

You can use Authorization & Capture with the PayPal products listed in Table 4.1, "PayPal Products Supporting Authorization & Capture."

By default, these products assume that a transaction is a final sale. You must explicitly specify that a transaction is a basic or order authorization.

Note: You must capture and void orders and order authorizations using the Authorization & Capture APIs. That is, you cannot process order authorizations on the PayPal website (https://www.paypal.com). The PayPal website supports processing only basic authorizations, not order authorizations.

TABLE 4.1 PayPal Products Supporting Authorization & Capture

Product	Typical Usage
Website Payments	paymentaction="authorization"
Buy Now	paymentaction="authorization"
Donations	paymentaction="authorization"
Shopping carts	paymentaction="authorization"

PayPal Products Not Supported. Authorization & Capture cannot be used with the following products:

- eBay checkout
- eCheck
- Gift Certificates and Coupons
- Subscriptions
- Instant Purchase

- Send Money
- Request Money
- Virtual Terminal
- Invoicing

Order Authorizations Scenarios

The following are common scenarios you will encounter when implementing order authorizations.

Simple Order

TABLE 4.2 Simple Order Scenario

Action	API Call	Running Balance
Your buyer orders an item from your website.		
You request an order from PayPal to authorize the payment, specifying the variable paymentaction=order. You receive a response that the order has been created for a payment amount of \$100.00.	DoExpressCheckoutPaymentRequest with: <paymentaction> order </paymentaction>	
You request authorization for \$100.00.	DoAuthorizationRequest	<\$100.00>
You capture funds in the amount of \$115.00, the maximum amount allowed. The order now has a "Complete" status.	DoCaptureRequest	\$15.00

Complex Order

TABLE 4.3 Complex Order Scenario

Action	API Call	Running Balance
Your buyer orders 2 items from your website.		
You request an order from PayPal to authorize the payment, specifying the variable paymentaction=order. You receive a response that the order has been created for a payment amount of \$100.00.	DoExpressCheckoutPaymentRequest with: <paymentaction> order </paymentaction>	
You request authorization #1 for \$75.00.	DoAuthorizationRequest	<\$75.00>
Your buyer contacts you and upgrades to next-day shipping. You capture funds in the amount of \$80.00 on authorization #1 to accommodate for the additional shipping charges.	DoCaptureRequest	\$5.00
You request authorization #2 for \$25.00.	DoAuthorizationRequest	<\$25.00>
Your buyer contacts you and changes an item on the order. You void authorization #2.	DoVoid	\$0.00
You request authorization #3 for \$35.00 for the new item selection.	DoAuthorizationRequest	<\$35.00>
You capture authorization #3 for \$35.00. Because the maximum amount of funds that can be captured has been reached (115% of the original order amount), the order now has a "Complete" status.	DoCaptureRequest	\$0.00

Concurrent Authorizations

TABLE 4.4 Concurrent Authorizations Scenario

Action	API Call	Running Balance
Your buyer orders 3 pieces of equipment for \$300.00 from your website.		

TABLE 4.4 Concurrent Authorizations Scenario

Action	API Call	Running Balance
You request an order from PayPal to authorize the payment, specifying the variable paymentaction=order. You receive a response that the order has been created for a payment amount of \$300.00.	DoExpressCheckoutPaymentRequest with: <paymentaction> order </paymentaction>	
You request authorization #1 on day 1 for \$100.00 for the keyboard. You receive a response that the authorization has been created for a payment amount of \$100.00.	DoAuthorizationRequest	<\$100.00>
You capture authorization #1 for \$100.00. You ship the keyboard.	DoCaptureRequest	\$0.00
You request authorization #2 on day 2 for \$200.00 for the second component. You receive a response that the authorization has been created for a payment amount of \$200.00.	DoAuthorizationRequest	<\$200.00>
On day 3, you capture authorization #2 for \$200.00.	DoCaptureRequest	\$0.00
You ship the second component.		

Total Capture Hits Relative Tolerance With Open Authorizations

TABLE 4.5 Total Capture Hits Relative Tolerance with Open Authroziations Scenario

Action	API Call	Running Balance
Your buyer orders an item from your website for \$1000.00.		
You request an order from PayPal to authorize the payment, specifying the variable paymentaction=order. You receive a response that the order has been created for a payment amount of \$1000.00.	DoExpressCheckoutPaymentRequest with: <paymentaction> order </paymentaction>	
Your buyer requests overnight shipping. You request authorization #1 for \$1100.00 (110% relative tolerance).	DoAuthorizationRequest	<\$1100.00>

TABLE 4.5 Total Capture Hits Relative Tolerance with Open Authroziations Scenario

Action	API Call	Running Balance
You receive a response that the authorization has been created for a payment amount of \$1100.00. You ship the in-stock item by overnight shipping.		
You capture authorization #1 for \$1100.00.	DoCaptureRequest	\$0.00
Your buyer contacts you and adds another item to the order. You request authorization #2 for \$60.00, increasing the order total to \$1160.00, which exceeds the 115% tolerance limit of the original order.	DoAuthorizationRequest	<\$60.00>
You receive a response that the request for authorization #2 has been declined.		\$0.00

Void Authorizations

TABLE 4.6 Void Authorizations Scenario

Action	API Call	Running Balance
Your buyer orders 2 items from your website.		
You request an order from PayPal to authorize the payment, specifying the variable paymentaction=order. You receive a response that the order has been created for a payment amount of \$350.00.	DoExpressCheckoutPaymentRequest with: <paymentaction> order </paymentaction>	
You request authorization #1 on day 1 for \$100.00. You receive a response that the authorization has been created for a payment amount of \$100.00.	DoAuthorizationRequest	<\$100.00>
You ship the item. You capture authorization #1 for \$100.00.	DoCaptureRequest	\$0.00
You request authorization #2 on day 2 for \$200.00. You receive a response that the authorization has been created for a payment amount of \$200.00.	DoAuthorizationRequest	<\$200.00>
The buyer contacts you and cancels the remaining item.		

TABLE 4.6 Void Authorizations Scenario

Action	API Call	Running Balance
You void authorization #2.	DoVoid	\$0.00

Partial Capture

TABLE 4.7 Partial Capture Scenario

Action	API Call	Running Balance
Your buyer orders an item from your website.		
You request an order from PayPal to authorize the payment, specifying the variable paymentaction=order. You receive a response that the order has been created for a payment amount of \$100.00.	DoExpressCheckoutPaymentRequest with: <paymentaction> order </paymentaction>	
.You request authorization #1 on day 1 for \$100.00. You receive a response that the authorization has been created for a payment amount of \$100.00.	DoAuthorizationRequest	<\$100.00>
You ship the item. You capture authorization #1 for \$100.00.	DoCaptureRequest	\$0.00
With Complete Type set to NotComplete on the DoCapture API, you capture funds in the amount of \$50.00.	DoCaptureRequest	\$50.00

Complete Capture

TABLE 4.8 Complete Capture Scenario

Action	API Call	Running Balance
Your buyer orders an item from your website.		
You request an order from PayPal to authorize the payment, specifying the	DoExpressCheckoutPaymentRequest with:	
variable paymentaction=order. You receive a response that the order has been created for a payment amount of \$100.00.	<paymentaction> order </paymentaction>	

TABLE 4.8 Complete Capture Scenario

Action	API Call	Running Balance
You request authorization #1 on day 1 for \$100.00. You receive a response that the authorization has been created for a payment amount of \$100.00.	DoAuthorizationRequest	<\$100.00>
You capture authorization #1 for \$100.00. You ship the item.	DoCaptureRequest	\$0.00

NOTE: The default for the DoCapture API is a Complete capture, not a Partial capture.

Optimal Buyer Experience

This section details the best practices you should follow in using Authorization & Capture to ensure the best buying experience for your customers and getting the most from Authorization & Capture.

Capturing Funds on Basic Authorizations

PayPal recommends that you capture funds within the honor period of three days because PayPal will honor the funds for a 3-day period after the basic authorization. If you attempt to capture funds after the three-day period and the authorization fails, your request to capture funds may be declined.

After day 4 of the authorization period, you can initiate a reauthorization, which will start a new three-day honor period. However, it will not extend the original authorization period past 29 days. For example, if you successfully complete a reauthorization on day 29 of the authorization period, funds will only be honored until the end of the 29th day, and a new three-day honor period will start but not extend beyond day 29.

You should capture funds within 24 hours after you ship your buyer's order.

Buyer Approval for Basic Authorizations

A buyer-initiated authorization allows you to capture funds from the buyer's account up to 115% of the originally authorized amount (not to exceed an increase of \$75 USD) and up to \$10.000 USD.

IMPORTANT: If you want to update any details of the purchase that change the original authorization amount, PayPal requires that you obtain consent from the buyer at the time of purchase or at the time of capture.

How Authorization & Capture Works

Optimal Buyer Experience

Voiding Basic Authorizations

You should void an authorization if the authorization or reauthorization will not be used. Voiding the authorization unlocks the temporary hold placed on your buyer's funding sources.

How Authorization & Capture Works

Optimal Buyer Experience

Frequently Asked Questions About Express Checkout

This chapter answers some questions about implementing PayPal Express Checkout.

Why should the PayPal Express Checkout button go at the beginning of the checkout?

One of the primary advantages of PayPal Express Checkout is that it allows your customer to skip several steps of the checkout process on your website. Instead of having to enter in a shipping address, billing address, and credit card information, your customer simply clicks the Express Checkout button, logs into his PayPal account, reviews his personal information, and then returns to your website to complete the purchase.

This will increase impulse purchases, repeat purchases, and purchases from shoppers who prefer to pay online using PayPal.

What if my customer needs to enter a new shipping address or edit shipping information?

On your first use of SetExpressCheckoutRequest, if your customer selected a shipping address stored in his PayPal account, PayPal recommends that you redirect the customer's browser back to PayPal to edit the shipping address. To redirect the browser a second time, use SetExpressCheckoutRequest again but also include the Token element and value you received on SetExpressCheckoutResponse the first time. (On the second SetExpressCheckoutRequest, you need to include ReturnURL, CancelURL, and other required elements only if their values are different from the values you included on the first SetExpressCheckoutRequest. These values will most likely be different on the second request.)

Note: Make sure to update the values of OrderTotal and MaxAmount to reflect any new costs

For more information about the Token, see the <u>SOAP API Reference</u>.

What's maximum difference between the estimated OrderTotal and the final OrderTotal?

Question

What is the maximum difference PayPal allows between the estimated OrderTotal sent with SetExpressCheckoutRequest at Integration Point 1 and the final OrderTotal sent with DoExpressCheckoutPaymentRequest at Integration Point 3?

Answer

There is no maximum allowable difference. However, at Integration Point 3 PayPal checks that the final OrderTotal still passes the PayPal risk model for the funding source the customer originally selected at Integration Point 1. If the originally selected payment methods are no longer acceptable (for example, if the customer's PayPal balance is insufficient to cover the final order amount), DoExpressCheckoutPaymentResponse returns error code 10422 to indicate that you must return the customer's browser back to PayPal to select and approve a new funding source.

PayPal expects such a condition to rarely occur, because at Integration Point 1, Express Checkout estimates a possible increase between the estimated OrderTotal and the final OrderTotal. This estimated difference is factored into the PayPal risk model but is not displayed to the customer.

What if I send my customer to PayPal but he changes his mind?

The customer sees a Cancel button prominently displayed on all Express Checkout pages. The hyperlink of the Cancel button is the value of the CancelURL element you send with SetExpressCheckoutRequest. If the customer changes his mind about using PayPal, a click of the Cancel button returns the browser to the URL you provide for this purpose. The Express Checkout token is appended to the value of your CanceluRL, as described in "ReturnURL, CancelURL, and the Express Checkout Token" on page 35. Similarly, if the customer is unable to pay with PayPal (for example, if his PayPal balance is insufficient), all PayPal error pages display a button that returns the customer to your CancelURL.

IMPORTANT: After approving use of PayPal and returning from PayPal to your website, if the customer changes his mind about using PayPal to pay you (for example, if the customer decides to pay on your website instead of with PayPal), do not use the final DoExpressCheckoutPayment API. A transaction through PayPal occurs only when you successfully invoke DoExpressCheckoutPaymentRequest.

What if my customer approves use of PayPal but does not purchase my product?

PayPal does not create a payment transaction until you send DoExpressCheckoutPaymentRequest at Integration Point 3 and receive a successful response. Therefore, if the buyer does not purchase a product on your site, there is no transaction.

At Integration Point 2, am I guaranteed that the payment will be successful?

Question

After the customer approves use of PayPal and returns to my website at Integration Point 2, am I guaranteed that the payment will be successful?

Answer

No. PayPal does not authorize the payment or place the customer's funds on hold until you send DoExpressCheckoutPaymentRequest at Integration Point 3. The reasons are that you might alter the final OrderTotal or the customer might decide not to complete the purchase.

Can I simply add PayPal's username and password fields to my website?

No. A customer's PayPal username and password are sensitive information belonging to the customer and safeguarded by PayPal. Many customers use PayPal because they do not feel comfortable entering credit card information directly on merchants' websites. Although your site is secure and trustworthy, PayPal must prompt customers for usernames and passwords on a PayPal-hosted page to assure them that PayPal is safeguarding their personal financial information.