



Select Junior Integration Guide [Edition 1.23, May 2004, for Software Version 4.4]

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About this Guide

Welcome to the WorldPay Select Junior Integration Guide. This guide explains how to connect your Internet shop to the WorldPay payment processing system using WorldPay's Hypertext Markup Language (HTML) integration method.

Before you get started

If you have set up your Internet shop using an off-the-shelf shopping cart, it may be that we have already developed a "cartridge" that handles the integration of your type of shop with the WorldPay server. To find out more about whether there is a standard solution for the shopping cart you use, please contact your shopping cart vendor or your local [Technical Support](#) department.

Select Junior is a HTML integration method. There are two other integration methods that you might like to consider, before you get started. *Select Pro* is an integration method based on Java servlets whilst *Select COM* is built around the ASP environment on Microsoft IIS. These methods offer some enhanced security features but require expertise in the relevant technologies to implement. If you think one of these options might be more appropriate for you, contact your local [Technical Support](#) department.

Who should use this document

This guide is designed for use by web developers who have a thorough working knowledge of HTML, including forms.

Terminology

In this document, the term *Customer* refers to a business that is using WorldPay to facilitate the selling of its products/services.

The term *Shopper* refers to an individual who is using WorldPay to buy the customer's products/services.

Download this Guide

A copy of this Help system is available in Adobe's Portable Document Format (PDF). You can download the PDF file and then print it on your own printer.

[Click here](#) to view and download the PDF file.

Related documents

Title	Audience	Purpose
Select Junior QuickStep Integration Guide	Customer/ Customer's integrator	Covers just the essentials of how to integrate your store with the WorldPay payment processing system, to get you connected as quickly as possible
Customer Procedures Guide	Customer/ Customer's integrator	Explains how the Customer's WorldPay account is set up and how to carry out various administrative procedures
Customer Management System User Guide	Customer	Provides a guide to all the facilities available to a Customer on the WorldPay Customer Management System and how to use them.
Chargeback Guide	Customer	Explains the WorldPay chargeback procedure (for WorldDirect Customers only)

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Introduction

Introduction to Select Junior

WorldPay Select is an online payment system that enables shoppers to make secure payments in more than 100 currencies over the Internet and enables, you, the Customer, to accept automated multi-currency payments. WorldPay's payment processing system works in conjunction with your own shopping system. Your shop has its own order pages, but utilises WorldPay's payment pages for the processing of payments. This means you can benefit from the various payment methods that WorldPay supports:

- Credit/Debit Cards
- *FuturePay*: A method designed for handling recurring future payments, such as subscriptions or installments.

The way in which information about purchases is passed between your shop and the WorldPay payment page is called the *Integration method*. The *Select Junior* integration method uses HTML-based forms to pass information between your site and WorldPay.

Select Junior gives you access to any WorldPay payment service and you can add additional services without the need to change your site. You could, for example, choose to add the *FuturePay* facility to a site that is already accepting card payments. Your site simply submits information about the purchase to WorldPay using the standard procedures described in this document and the WorldPay server provides all the specialised features that are required to support your chosen payment methods.

Note: To use *FuturePay* you need to supply some additional parameters in the purchase form that you submit to WorldPay. This is described in the separate *FuturePay Guide*, available from your local [Support department](#).

The following sections give a further overview of how processing a payment through WorldPay works:

- [How WorldPay Select Works](#)
- [WorldPay and different currencies](#)

How WorldPay Select Works

The following outlines the main stages in processing a payment through WorldPay.



1. A Shopper visits the Customer's web site and chooses the products/services that they would like to buy (the "shopping basket").
2. The Shopper submits the shopping basket. This generates a summary description of the purchase that is sent to WorldPay for payment processing. This submission is often referred to as the "purchase token".
3. WorldPay displays a series of forms in which the Shopper submits his payment details to the WorldPay secure server and chooses from the payment methods you have chosen to enable on your site.
4. WorldPay stores purchase and payment details on the WorldPay secure server database.
5. If the Shopper has chosen to pay by Credit/Debit card:
 - WorldPay forwards the Shopper's details to the bank, where the Shopper's credit worthiness is checked.
 - The bank returns an authorised or declined response to WorldPay.
 - If the payment is declined, the Shopper is given two options; to try another means of payment or to cancel the purchase.
6. WorldPay displays a page to the Shopper with the outcome of the payment transaction and, if it is the first time they have used WorldPay, a username and password to enable them to check their transaction on the WorldPay system. WorldPay also sends a "digital receipt" by email. For more information, see [Shopper email receipt](#).

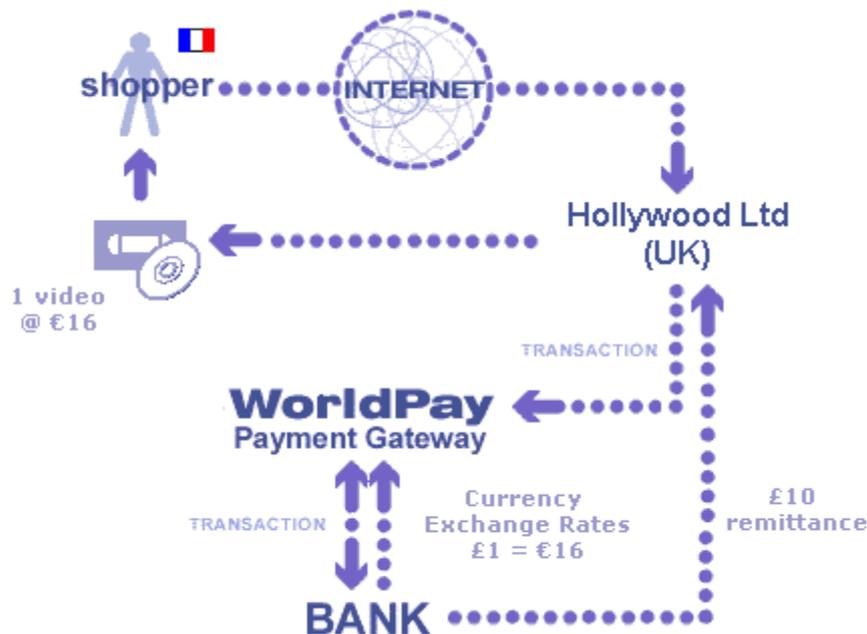
Note: the generation of the username and password can be suppressed. Please contact your local [Technical Support](#) department if you do not want to make this feature available to your Shoppers.

7. The Customer has three options for being informed of the purchase transaction outcome. These can be configured via the *Customer Management System (CMS)*:
 - the Customer can log on to the *Customer Management System (CMS)* to view details of their transactions and to obtain statements of their WorldPay accounts
 - the Customer can request automatic email notification by ticking a checkbox in the *Account Management* section of the *CMS*

- the WorldPay server can send a "callback" to a URL on the Customer's server, passing the transaction details.

WorldPay also provides various administrative facilities to enable a Customer to manage their WorldPay accounts. For full details, see the *Guide to Using the Customer Management System*.

WorldPay and Different Currencies



WorldPay deals seamlessly with a wide range of currencies.

For example, Hollywood Ltd, a UK company, wants to use WorldPay for the sale of videos. Videos are sold to French shoppers for 16 Euros with remittance made in Sterling at €16=£1:

1. Hollywood signs a customer agreement with NatWest and an agreement with WorldPay. Hollywood establishes separate bank accounts if they require multiple remittance currencies.
2. A Shopper visits the Hollywood web site and pays 16 Euros for a video. WorldPay sends the transaction to NatWest and the order to Hollywood. Hollywood dispatches the product.
3. NatWest collects online 16 Euros from the Shopper's credit/debit card. Three days later NatWest transfers £10 into Hollywood's Sterling remittance account.
4. Hollywood's Shopper is charged 16 Euros by their credit card issuer.
5. Every 24 hours NatWest transmits all the foreign exchange rates for the subsequent day to the WorldPay payment server, so that the Shopper always sees prices at current exchange rates on the WorldPay server.
6. WorldPay Select provides a URL which a Customer can call to retrieve the [current exchange rates](#), enabling them to keep their own site up to date.

Getting started

Once your application to join WorldPay has been approved, you can begin the process of integrating your shop with WorldPay's payment system.

The following topics look at what you will need to have before you can get started.

- [Access to the WorldPay System](#)
- [Operating Environment](#)
- [Basic Purchase Submission Form](#)

Access to the WorldPay System

Once your application to WorldPay has been accepted, you will be contacted by your local WorldPay [Technical Support](#) department. They will provide you with the following:

Installation ID

Your Installation ID is issued by the Support Team and should not be confused with the WorldPay Company ID, which is sent to you as soon as your application to WorldPay is provisionally accepted. The Installation ID is important as it must be included in the form you send from your shop to WorldPay to initiate a purchase.

For more information on how to do this see [Sending a Purchase to WorldPay](#).

Customer Management System (CMS) URL

The Customer Management System (CMS) provides various administrative facilities to help you manage your shop.

- You can access your account details and full statement information.
- You can perform refunds and post-authorisations (if you have chosen to use the post-authorisation service)
- You can upload files to use in customising the WorldPay payment pages.

CMS username and password

We supply you with a unique username and password to access the CMS. You can change this username and password as often as you like and, for security purposes, we recommend that you change it as soon as you receive it.

For more information about the CMS, refer to the [Guide to Using the Customer Management System](#).

Applying to WorldPay

If you have not yet applied for a WorldPay account, visit www.worldpay.com where you can fill in an online application form. If you need assistance with the form, or would like an offline version to fill in, contact sales@uk.worldpay.com.

Operating Environment

A description of WorldPay's secure operating environment is given below for your information. The requirements for the Customer system are also described.

WorldPay Environment

Hardware

The WorldPay payment system runs on a Multi Processor Sun Sparc Server.

Software

Operating system	Solaris 2.6
Secure web server	Apache-SSL
Firewall	Firewall 1 version 3.0
Encryption protocol	SSL. The server is capable of 128 bit encryption, subject to browser restrictions.

Customer Environment

WorldPay Select requires the Customer site to submit information to WorldPay in an HTML form. This form can be a static page or can be produced by a CGI script or any other method for generating dynamic pages.

You do not need a secure server as all sensitive card information is collected on WorldPay's secure server.

Basic Purchase Submission Form

Using Select Junior, you can have a demonstration shop up and running within minutes. To do this, paste the HTML form below somewhere on the page advertising the product you wish to sell and edit the values in italics to include your own example data.

Example:

```
<form action="https://select.worldpay.com/wcc/purchase"
method=POST>
<input type=hidden name="instId" value="Your installation ID">
<input type=hidden name="cartId" value="Your ID for the product">
<input type=hidden name="amount" value="The cost of the product">
<input type=hidden name="currency" value="currency code e.g. GBP,
USD">
<input type=hidden name="desc" value="what you are selling">
<input type=hidden name="testMode" value="100">
<input type=hidden name="email" value="Shopper's email address">
<input type=submit value="Buy This"> </form>
```

The form will add a 'Submit' button to the page. If you click the Submit button, you will be taken to the WorldPay secure server and can then follow through the payment pages. The *testMode* parameter has a value of 100 in this transaction, which means that it will "succeed" whatever card details you supply. Because this is a test transaction no money ever changes hands.

Having introduced the essentials of how the WorldPay payment system works and how you connect to it, the rest of the guide will describe in greater detail how to submit and process a transaction, how to test your site and how to go live.

Sending a Purchase to WorldPay

When a Shopper is ready to pay for their goods, your shopping site should present them with a button or link that, when clicked, submits a HTML form, or "purchase token" describing the purchase to the WorldPay secure server.

This purchase submission form must describe a single total purchase rather than a series of items in a shopping cart. If you want to sell multiple items, you must summarise the total purchase amount and description of the goods on your own site before passing the summarised details through to WorldPay.

The following sections look in more detail at the purchase submission form:

- [Example purchase submission form](#)
- [Purchase form parameters](#)
- [Passing shopper billing address details](#)
- [Running in test mode](#)
- [Specifying preferred accounts](#)

Example Purchase Submission Form

The following form is an example of the data submitted to WorldPay for a single-item payment.

For more information about the parameters included in this form, see [Purchase Form Parameters](#). For a full list of all the fields that can be submitted to initiate a payment, see [WorldPay Parameters](#).

Example:

```
<form action="https://select.worldpay.com/wcc/purchase"
method=POST>
<input type=hidden name="instId" value="1234">
<input type=hidden name="cartId" value="101KT0098">
<input type=hidden name="amount" value="25.35">
<input type=hidden name="currency" value="GBP">
<input type=hidden name="desc" value="Blue T-Shirt, Medium">
<input type=hidden name="testMode" value="100">
<input type=hidden name="name" value="J. Bloggs">
<input type=hidden name="address" value="4 Any
St, &#10;Somewhere">
<input type=hidden name="postcode" value="AB10 5AB">
<input type=hidden name="country" value="GB">
<input type=hidden name="tel" value="0123456789">
<input type=hidden name="email" value="demo@uk.worldpay.com">
<input type=submit value="Buy This">
</form>
```

Purchase Form Parameters

Obligatory parameters

There are five parameters or variables that must be included in the purchase token you send to WorldPay.

Note: All parameter names are case-sensitive.

Parameter	Definition	Example
instId	Your WorldPay Installation ID	1234
currency	The currency of the purchase (click here for a list of codes)	GBP
desc	A description of the purchase	Blue T-Shirt, Medium
cartId	A reference you assign to help you identify the purchase	101KT0098
amount	The total cost of the purchase	25.35

Optional parameters

There are other parameters that you may wish to include in your purchase form, such as the Customer billing address details.

For a full list of the parameters that can be submitted to initiate a payment, see [WorldPay Parameters](#).

Custom Parameters

In addition, you can create your own custom parameters that are passed through the WorldPay server and can be returned to your server in a "callback". For more information about callbacks, see [Customer Server Callback](#). These parameters can also be used in the pages returned to the Shopper in response to their payment. For more information, see [Shopper Response Page](#).

Custom parameters that you want to return to yourself in a callback should have names starting with "M_" while fields to be used in the Shopper's page should start with "C_". To use a field for both, use a prefix of "MC_" or "CM_".

Example:

```
<input type=hidden name="M_my-custom-var" value="sent in the
callback">
<input type=hidden name="C_my-custom-var" value="displayed on the
Shopper's page">
<input type=hidden name="MC_my-custom-var" value="M_ and MC_
combined">
```

Passing Shopper Billing Address Details

If you pass billing address details for the Shopper from your site to WorldPay, these are automatically placed into any billing address fields that the Shopper would be required to fill in on the WorldPay server. If you have already captured this information from the Shopper, then it is best to submit it to us to prevent them having to type it again. Alternatively, you can rely on the address details that are returned to you in the [payment response](#) and not gather these details on your site. Capturing the details on your site, however, allows you to validate the details yourself.

Note: The Shopper is able to change any address details that you pass to us, unless you pass the details to us as fixed data. For more information on how to do this, see the Technical Note [Passing Shopper address details from your site to WorldPay as fixed data](#).

For a list of the parameters that can be used to pass the Shopper's address details to WorldPay, see [WorldPay Parameters](#).

Running in Test Mode

When you are testing your site, you should use a value for the parameter *testMode* that is greater than 0, for example:

```
<input type=hidden name="testMode" value="100">
```

Your transactions will be put through a test account rather than a live account. You will be able to access all the WorldPay account management facilities for this test account using the *Customer Management System (CMS)*. This will enable you to get a realistic sense of the whole payment processing procedure via WorldPay, without any money ever changing hands.

For information about the *testMode* values you can use, see [Test Modes](#).

For more advice about testing your installation in general, see [Testing Your Installation](#).

Specifying Preferred Accounts

Most Customers are unlikely to need to specify preferred accounts for a transaction. As a general rule, WorldPay opens one account per currency that you process. The WorldPay system automatically selects an account suitable for processing each transaction, based on the value of the *testMode* parameter and the currency of the transaction.

Preferred accounts become relevant when you have accounts with identical characteristics to be used for different purposes. For example, you may have one Sterling (GBP) account for software sales and another for hardware sales. Payments submitted to WorldPay for software will need to specify the software account and similarly for hardware. If you do not specify which, then the WorldPay system selects whichever is found first in the database.

You specify accounts to be used by using the parameter `accId1`.

Example:

```
<input type=hidden name="accId1" value="1234567">
```

The WorldPay system tries your accounts in order until one suitable for the payment is found.

If none of the specified accounts matches then WorldPay goes on to try any others you may have. Hence these parameters specify a preference rather than an absolute list of accounts to use.

The WorldPay Payment Pages

Once the purchase information has been received by the WorldPay Secure Server, the Shopper is presented with a series of forms in which to provide the information needed to process the transaction.

These pages can be customised in many ways to blend seamlessly with your shop. The *Customer Management System* provides you with an easy to use interface through which you can:

- change colours
- change fonts
- change button images
- add your own headers and footers
- add text to the email receipt sent to your Shoppers on completion of a successful transaction
- choose and add languages in which you want the Payment Page to be available to your Shoppers
- backup and restore Payment Pages
- copy a Payment Page across several WorldPay installations
- manage the files required to build the Payment Pages
- select pre-defined templates

For full information on how you can customise your payment pages, see the separate [Payment Page Editor User Guide](#).

Payment Response

As far as you, the Customer, are concerned there are two possible outcomes for a payment - either it succeeds and the payment is made or else the Shopper cancels the payment. The Shopper can do the latter at any point, including when the bank declines a card transaction. The "card declined" status is never returned to you. The Shopper always has the choice of trying another method of payment, such as another card.

The following sections look in detail at the forms of payment response that can be sent to you and to the Shopper from WorldPay.

- [Returning the payment response to the Customer](#)
- [Returning the payment response to the Shopper](#)

Returning the Payment Response to Yourself

Once a payment has been processed, either through to success or to cancellation, information about the processed transaction is made available to you through any of the following methods.

- statements and reports available on the *Customer Management System (CMS)*
- [an automatic email receipt](#) sent to an address that you specify in *CMS*
- [a http or https callback to a specified URL](#), typically on your web server, passing the results as http or https request parameters

Statements and reports, are always available to you and are documented in the [Guide to Using the Customer Management System](#). The other two options are described further in this guide.

Customer Email Receipt

If you wish, you can choose to receive automatic email receipts giving you notification of each transaction that takes place. You can set up the system to send you these email receipts by ticking a checkbox in the *Configuration Options* for your accounts on the *Customer Management System*. The email receipt is sent to the address specified for the account that is receiving the payment.

For more information on using the *Customer Management System*, please see the [Guide to Using the Customer Management System](#).

Customer Server Callback

"Callback" is the facility we offer to inform your site about what happens on the WorldPay Payment Page, once your shopping cart or web site has sent the purchase details through to WorldPay. The callback is triggered in the following circumstances:

- the Shopper selects **Make Payment** on the WorldPay Payment Page (and the card is accepted)
- the Shopper selects **Cancel Purchase** on the WorldPay Payment Page

There are various benefits of using callback.

- more data is returned to you in the callback than you would receive in the standard email notification
- you can pass your own parameters through the WorldPay server and back to yourself in the callback
- you can confirm the integrity of the data received and processed by WorldPay

These sections look at the callback in more detail:

- [How the WorldPay callback works](#)
- [Sending a response to the WorldPay callback](#)
- [What happens if the callback fails?](#)
- [Using GET rather than POST](#)
- [Dynamic callback](#)
- [WorldPay example callback](#)
- [Callback FAQs](#)

How the WorldPay callback works

All the WorldPay transaction details are sent back to you, together with any custom "M_" or "MC_" parameters that you submitted to WorldPay in the original purchase token. ("C_" parameters are not returned in the callback but are available for use in the result page that you may wish to send in response to the callback, see [Sending a response to the WorldPay callback](#)). Any parameters generated as a result of the transaction (or cancellation) are included, and a parameter is provided for you to determine under which circumstance the callback was initiated.

To use the callback, you will need a capture script of some kind, such as a CGI-script, PHP or Perl script. You must also specify the URL of this capture script and enable the callback facility in the *Customer Management System*. For more information about how to do this, see [Setting up the callback in CMS](#).

The callback is sent using the HTTP POST method by default but it is possible to configure your installation to return the parameters using HTTP GET. For more information, see [Using GET rather than POST](#).

Callback example

Using this example Select Junior purchase token:

Example:

```
<FORM ACTION="https://select.worldpay.com/wcc/purchase"
METHOD=POST>
<INPUT TYPE=HIDDEN NAME=desc VALUE="Test Item">
<INPUT TYPE=HIDDEN NAME=cartId VALUE="Test Item">
<INPUT TYPE=HIDDEN NAME=testMode VALUE=100>
<INPUT TYPE=HIDDEN NAME=instId VALUE=38290>
<INPUT TYPE=HIDDEN NAME=currency VALUE="GBP">
<INPUT TYPE=HIDDEN NAME=amount VALUE=14.99>
<INPUT TYPE=HIDDEN NAME=futurePayType VALUE="regular">
<INPUT TYPE=HIDDEN NAME=option VALUE=1>
<INPUT TYPE=HIDDEN NAME=startDelayMult VALUE=3>
<INPUT TYPE=HIDDEN NAME=startDelayUnit VALUE=2>
<INPUT TYPE=HIDDEN NAME=noOfPayments VALUE=11>
<INPUT TYPE=HIDDEN NAME=intervalMult VALUE=1>
<INPUT TYPE=HIDDEN NAME=intervalUnit VALUE=3>
<INPUT TYPE=HIDDEN NAME=normalAmount VALUE=17.99>
<INPUT TYPE=HIDDEN NAME=initialAmount VALUE=10.00>
<INPUT TYPE=HIDDEN NAME=name VALUE="WorldPay Test">
<INPUT TYPE=HIDDEN NAME=address VALUE="Test Road&#10;Test
Town&#10;Test City">
<INPUT TYPE=HIDDEN NAME=postcode VALUE="AB1 2CD">
<INPUT TYPE=HIDDEN NAME=country VALUE="GB">
<INPUT TYPE=HIDDEN NAME=tel VALUE="0123 456789012">
<INPUT TYPE=HIDDEN NAME=fax VALUE="01234 5678901">
<INPUT TYPE=HIDDEN NAME=email VALUE="tiq@uk.worldpay.com">
<INPUT TYPE=HIDDEN NAME=lang VALUE="en">
<INPUT TYPE=HIDDEN NAME=fixContact>
<INPUT TYPE=HIDDEN NAME=subst VALUE="yes">
<INPUT TYPE=HIDDEN NAME="C_return" VALUE="welcome back">
<INPUT TYPE=HIDDEN NAME="M_var1" VALUE="fred">
<INPUT TYPE=HIDDEN NAME="MC_log" VALUE="2379">
<INPUT TYPE=SUBMIT VALUE="Purchase this item using WorldPay">
</FORM>
```

and the following test card details:

Card Number: 4000 0000 0000 0002

Expiry Date: Within seven years from the purchase token reaching WorldPay.

Security Code: 123

this is what would be returned to the callback URL specified on the *Customer Management System* for this installation:

for an authorised transaction:

```
instId=38290&email=tiq%40uk.worldpay.com&transTime=999178402000&country=GB&
rawAuthCode=A&amount=14.99&installation=38290&tel=0123+456789012&address=
Test+Road%0D%0ATest+Town%0D%0ATest+City&futurePayId=76486&MC_log=2379&
rawAuthMessage=authorised+(testMode+always+Yes)&authAmount=23.11&amountString=
%26%23163%3B14.99&cardType=Visa&AVS=0001&cost=14.99&currency=GBP&testMode=100&
authAmountString=EUR23.11&fax=01234+5678901&lang=en&transStatus=Y&compName=
Ian+Richardson&authCurrency=EUR&postcode=AB1+2CD&authCost=23.11&desc=Test+Item&
countryMatch=S&cartId=Test+Item&transId=12227758&callbackPW=38290&M_var1=fred&
authMode=E&countryString=United+Kingdom&name=WorldPay+Test
```

or for a cancelled transaction

```
instId=38290&email=tiq%40uk.worldpay.com&country=GB&amount=14.99&installation=
38290&tel=0123+456789012&address=Test+Road%0D%0ATest+Town%0D%0ATest+City&MC_log=
2379&amountString=%26%23163%3B14.99&cost=14.99&currency=GBP&testMode=100&fax=
01234+5678901&transStatus=C&compName=Ian+Richardson&postcode=AB1+2CD&desc=
Test+Item&cartId=Test+Item&callbackPW=38290&M_var1=fred&authMode=A&countryString=
United+Kingdom&name=WorldPay+Test
```

To determine whether a transaction has been authorised or cancelled, you should test for the value of the *transStatus* parameter; this will be set to a Y or C respectively. For a full explanation of the rest of the parameters and their values, see [WorldPay Parameters: Payment Response](#).

Note: All the details returned in the callback are case sensitive. For example, checking for *transStatus* would work, checking for *TransStatus* would fail.

Two parameters are returned in the query string, appended to the callback URL. Of these two parameters, "installation" is included in the POST but msgType isn't. In the above example this is added as ?msgType=authResult&installation=38290.

callbackPW is returned if you have set a "Callback password" for your installation on the *Customer Management System*. As the value of this is only known to WorldPay and your callback script, it can be used as a basic security check within your script.

Sending a response to the WorldPay callback

You can, if you wish, respond to the WorldPay callback with a complete page of HTML that will be displayed to the Shopper instead of the result pages stored on the WorldPay server. So, if customising the WorldPay result pages, *resultY.html* and *resultC.html*, doesn't offer you enough flexibility, you can use your callback script to generate the response.

The WorldPay server will capture the response and check that the WorldPay tag `<WPDISPLAY ITEM=banner>` is present. If you include this tag in the output of your callback, the WorldPay server will replace it with the WorldPay receipt banner, in the place that you specify. The receipt banner **MUST** be included in the result page as it contains text that is legally mandatory. If it is omitted, the WorldPay server will display the banner either immediately after the `<BODY>` tag or, if this cannot be found, at the beginning of the output.

Please ensure that your callback script is able to complete quickly. The WorldPay server will wait for 60 seconds or until the script has completed, whichever is sooner, before displaying any output to the Shopper. If your script generates no output or the WorldPay server is unable to collect any output from your script, it will display the *resultY.html* or *resultC.html* file instead.

Custom variables, prefixed with either "C_" or "MC_" are available for use in the payment response page displayed to Shoppers. Variables prefixed with "M_" are not available for use in the response page.

Note: you may prefer to use "MC_" variables throughout as these are available to both the callback script and the *resultY.html* or *resultC.html* pages.

For WorldPay to use the output of your callback script, you will need to ensure that the "Use callback response?" checkbox is ticked for your installation on the *Customer Management System*. For more information see, [Setting up the callback in the Customer Management System](#).

 There are several things to bear in mind when using this facility:

- any output generated by your script, including errors, will be considered output to display to the Shopper.
Note: this can be useful when debugging callback scripts, even if you do not wish to use the callback response after this
- any images you wish to use will need to be uploaded to your installation using the *Customer Management System*. They should be referenced within the output of your script as:

```
<IMG SRC="/i/xxxxx/imagename.gif">
```

where xxxxx is your WorldPay installation ID. If this is not possible, for example because you wish to use an affiliate program, you need to ensure the resource is fetched from a URL beginning `https://`. If any resources used in the output are fetched from an `http://` address then the Shopper may see a warning message from their browser that a mixture of secure and insecure items is being used on the page

- any `<A HREF>` links included in the output, for example back to your web site, must be absolute links
- redirection of the output using a server redirect will fail with an error (which will be displayed to the Shopper)
- redirection of the output using, for example, a Javascript-forced form submission or a META REFRESH tag, will prevent the shopper from seeing the WorldPay receipt banner and so is prohibited.

What happens if the callback fails

If it is not possible for our server to reach your callback script, then we will use the *resultY.html* and *resultC.html* pages held on the WorldPay server for your installation. It may be possible, however, for the Shoppers' browser to reach your callback (or any other) script instead, and it is possible using `<WPDISPLAY>` to create a form on these result pages that can be used as a second attempt to send the details through to you.

An example form on your *resultY.html* or *resultC.html* pages, to collect all the information from the above Select Junior purchase token might look something like this:

Example:

```
<FORM ACTION="http://www.myserver.com/mycallbackscript.cgi"
METHOD="POST">
<INPUT TYPE=HIDDEN NAME="instId" VALUE="<WPDISPLAY ITEM=instId">">
<INPUT TYPE=HIDDEN NAME="email" VALUE="<WPDISPLAY ITEM=email">">
<INPUT TYPE=HIDDEN NAME="transTime" VALUE="<WPDISPLAY
ITEM=transTime">">
<INPUT TYPE=HIDDEN NAME="country" VALUE="<WPDISPLAY
ITEM=country">">
<INPUT TYPE=HIDDEN NAME="rawAuthCode" VALUE="<WPDISPLAY
ITEM=rawAuthCode">">
<INPUT TYPE=HIDDEN NAME="amount" VALUE="<WPDISPLAY ITEM=amount">">
<INPUT TYPE=HIDDEN NAME="installation" VALUE="<WPDISPLAY
ITEM=installation">">
<INPUT TYPE=HIDDEN NAME="tel" VALUE="<WPDISPLAY ITEM=tel">">
<INPUT TYPE=HIDDEN NAME="address" VALUE="<WPDISPLAY
ITEM=address">">
<INPUT TYPE=HIDDEN NAME="futurePayId" VALUE="<WPDISPLAY
ITEM=futurePayId">">
<INPUT TYPE=HIDDEN NAME="MC_log" VALUE="<WPDISPLAY ITEM=MC_log">">
<INPUT TYPE=HIDDEN NAME="rawAuthMessage" VALUE="<WPDISPLAY
ITEM=rawAuthMessage">">
<INPUT TYPE=HIDDEN NAME="authAmount" VALUE="<WPDISPLAY
ITEM=authAmount">">
<INPUT TYPE=HIDDEN NAME="amountString" VALUE="<WPDISPLAY
ITEM=amountString">">
<INPUT TYPE=HIDDEN NAME="cardType" VALUE="<WPDISPLAY
ITEM=cardType">">
<INPUT TYPE=HIDDEN NAME="AVS" VALUE="<WPDISPLAY ITEM=AVS">">
<INPUT TYPE=HIDDEN NAME="cost" VALUE="<WPDISPLAY ITEM=cost">">
<INPUT TYPE=HIDDEN NAME="currency" VALUE="<WPDISPLAY
ITEM=currency">">
<INPUT TYPE=HIDDEN NAME="testMode" VALUE="<WPDISPLAY
ITEM=testMode">">
<INPUT TYPE=HIDDEN NAME="authAmountString" VALUE="<WPDISPLAY
ITEM=authAmountString">">
<INPUT TYPE=HIDDEN NAME="fax" VALUE="<WPDISPLAY ITEM=fax">">
<INPUT TYPE=HIDDEN NAME="lang" VALUE="<WPDISPLAY ITEM=lang">">
<INPUT TYPE=HIDDEN NAME="transStatus" VALUE="<WPDISPLAY
ITEM=transStatus">">
<INPUT TYPE=HIDDEN NAME="compName" VALUE="<WPDISPLAY
ITEM=compName">">
<INPUT TYPE=HIDDEN NAME="authCurrency" VALUE="<WPDISPLAY
ITEM=authCurrency">">
<INPUT TYPE=HIDDEN NAME="postcode" VALUE="<WPDISPLAY
ITEM=postcode">">
<INPUT TYPE=HIDDEN NAME="authCost" VALUE="<WPDISPLAY
ITEM=authCost">">
<INPUT TYPE=HIDDEN NAME="countryMatch" VALUE="<WPDISPLAY
ITEM=countryMatch">">
<INPUT TYPE=HIDDEN NAME="cartId" VALUE="<WPDISPLAY ITEM=cartId">">
```

```
<INPUT TYPE=HIDDEN NAME="transId" VALUE="<WPDISPLAY  
ITEM=transId>">  
<INPUT TYPE=HIDDEN NAME="authMode" VALUE="<WPDISPLAY  
ITEM=authMode>">  
<INPUT TYPE=HIDDEN NAME="countryString" VALUE="<WPDISPLAY  
ITEM=countryString>">  
<INPUT TYPE=HIDDEN NAME="name" VALUE="<WPDISPLAY ITEM=name>">  
<INPUT TYPE=SUBMIT VALUE="Return to web site">  
</FORM>
```

Each of the WorldPay tags such as, <WPDISPLAY ITEM=authMode> would be replaced with the value of the variable each time the *resultY.html* or *resultC.html* page is displayed.

For more information on WorldPay tags and file substitution, see [WorldPay tags used in file substitution](#).

Using GET rather than POST

If you require WorldPay to return the callback variables in the query string you will need to modify your callback URL on the *Customer Management System* as shown in the example below:

From:

```
http://www.myserver.com/mycallbackscript.cgi
```

To:

```
http://www.myserver.com/mycallbackscript.cgi?transaction=<WPDISPLAY  
ITEM=transId>&reference=<WPDISPLAY ITEM=cartId>
```

In this example, for an authorised transaction the URL would be converted to:

```
http://www.myserver.com/mycallbackscript.cgi?msgType=authResult&installation=38290&  
transaction=12227758&reference=Test Item
```

or for a cancelled transaction:

```
http://www.myserver.com/mycallbackscript.cgi?msgType=authResult&installation=38290&  
transaction=&reference=Test Item
```

Note: The HTTP POST will still be sent.

If you wish to collect the Shopper's address using this method, you can do so using the WorldPay tag `<WPDISPLAY ITEM=address>`. It is recommended, however, that this tag is put as the last item in the callback URL.

To turn off the insertion of *msgType* and *installation* within the callback query string, contact WorldPay [Technical Support](#) (quoting the Installation Id) to request "Use literal callback?" is enabled.

Dynamic callback

It is possible to change the callback URL every single time a purchase token is sent through to WorldPay. The only known limitation to this is that the URL scheme (either http:// or https://) can only be changed manually.

To implement this, you will need to include a variable within your purchase token, prefixed with either "M_" or "MC_".

Example:

```
<INPUT TYPE=HIDDEN NAME=MC_callback  
VALUE="www.myserver.com/mycallbackscript.cgi">
```

Adding a query string (or extending one included within the value of the callback variable) is permitted, and additional <WPDISPLAY> tags can also be included, if required. For more information on <WPDISPLAY> tags, see [WorldPay Tags Used in File Substitution](#).

On the *Customer Management System*, you will need to set your callback URL to include the name of the variable using <WPDISPLAY>.

Example:

```
http://<WPDISPLAY ITEM=MC_callback>
```

If you wish to use the WPDISPLAY DEFAULT syntax (see WorldPay tags used in file substitution), you could still trigger a callback to a default or backup server, even if the variable is undefined. This is particularly useful if, for example, you have to change the server name or IP address. You can use the variable value to include a name, the WPDISPLAY DEFAULT, to use an IP address. Instead of logging in to the *Customer Management System* when you need to change the callback URL, simply change the reference in the script sending the purchase token to WorldPay.

WorldPay Example Callback

As a facility in Select Junior, WorldPay have set up a basic callback system which enables you to have more information sent back to you, in the form of an email, when a transaction is made. This callback uses a script on the WorldPay server that is called when a transaction is made.

Note: this is an example for you to examine and use for testing. We accept no responsibility for you receiving the email that the script sends or for problems caused by disruption on the WorldPay server.

To use the script you need to do the following:

1. Add the following lines of code to the HTML form that you send to WorldPay and alter the values so that the "*M_recipient*" value is the email address where you want the email sent and "*M_subject*" value is the subject line of the email and "*M_email*" is the email address that it is sent from.

```
<INPUT TYPE=hidden NAME="M_recipient"
VALUE="youname@your_domain.com">
<INPUT TYPE=hidden NAME="M_subject" VALUE="Order From ---">
<INPUT TYPE=hidden NAME="M_email"
VALUE="yourname@your_domain.com">
```

2. Put the following URL into the callback URL input box in the *Configuration Options* for your installation.

```
http://www.worldpay.com/cgi-bin/select_callback.pl
```

3. Tick the *callback enabled* checkbox

As standard this will email you all the information that is recorded by the system. For a list of which parameters this will include, see [WorldPay Parameters](#), [Payment Response](#).

If you would like any extra information to be sent back in the email, you can achieve this by using custom parameters. For more information on how to do this, see [Purchase Form Parameters](#).

The open source code for this callback can be obtained from:
<http://www.worldwidemart.com/scripts/formmail.shtml>

Note: This callback script is provided for testing purposes only, and should not be relied upon as a method of obtaining call back information in a live environment.

Setting up the Callback in the Customer Management System

To use the callback facility, you will need to change the *Configuration Options* of your installation on the Customer Management System (CMS).

1. To access the CMS, go to the following URL <https://select.worldpay.com/wcc/admin>
2. Log on with the username and password that has been given to you by Technical Support
3. Click on **Configuration Options** for the relevant installation
4. Tick the *use callback* checkbox to enable the callback facility
5. If you wish to send pages from your own server to the Shopper in response to the callback, tick the *enable callback response* checkbox
6. If you wish to use a callback password, enter it in the callback password input box. To unset this password select the *Use Default* checkbox, which sets it back to an empty string.

Returning the Payment Response to the Shopper

Once a payment has been processed, a final response page is displayed to the Shopper and an email "digital receipt" is sent to the email address they supplied during the purchase.

Note: we cannot guarantee that the Shopper will receive the email as we cannot verify the accuracy of the email address supplied, but they will always get the response page.

- [Shopper's email receipt](#)
- [Shopper's response page](#)

Shopper's Email Receipt

An email "digital receipt" is sent to the address supplied by the Shopper during the transaction. You can add your own text to this receipt in the *Email Options* section of the *Look/Feel Configuration Options* on the *Customer Management System*.

Note: Some of the text in the Shopper email is mandatory as WorldPay is legally required to provide certain information to the Shopper.

Shopper's Response Page

Once a transaction has been processed, one of two response pages is returned to the Shopper: a successful transaction page or a cancelled transaction page. By default WorldPay sends out a file called *resultY.html* for a successful transaction and *resultC.html* for a cancelled transaction but there are two ways in which you can supply your own customised response.

- you can [upload your own versions of the *resultY.html* and *resultC.html* files](#) to the WorldPay server to replace the default WorldPay pages
- if you are using the callback facility, you can [respond to the WorldPay callback](#) with a callback script of your own, sending a complete page of HTML that will display on the WorldPay site instead of the default *resultY.html* or *resultC.html* pages.

Uploading your own *resultY.html* and *resultC.html* files

If you want to upload customised versions of the *resultY.html* and *resultC.html* files to the WorldPay server, you can do so using the *File Management* option for your installation in *CMS*. You can download and modify the WorldPay default versions of these files but they include complex tags. We recommend creating your own version that does what you want rather than modifying ours. You should make sure, however, that the file names match those used by WorldPay.

The result pages automatically display with the header and footer stored for your installation on the WorldPay server. These will either be the WorldPay-supplied defaults or your own, if you have created them. WorldPay always puts a standard banner into the final payment response page containing certain information that must be conveyed to the shopper. The rest of this page is under your control (see below). This banner is inserted at the point of the following tag:

```
<WPDISPLAY ITEM="banner">
```

If you do not include this tag, it defaults to immediately after the BODY tag. If there is no BODY tag, then the banner goes at the top of the output.

Example: *resultC.html*

```
<html>
<head>
<title>Payment Cancelled</title>
</head>
<WPDISPLAY FILE=header.html>
<h1>My Company Ltd.</h1>
<br>Your order has been cancelled<br>
<a href="www.mycompany.com">Click here to return to my
homepage</a>
<WPDISPLAY ITEM=header>
<WPDISPLAY FILE=footer.html>
</html>
```

Example: *resultY.html*

```
<html>
<head>
<title>Thank you for your payment</title>
</head>
<WPDISPLAY FILE=header.html>
<h1>My Company Ltd.</h1>
<WPDISPLAY ITEM=name>, thank you for your payment of<WPDISPLAY
ITEM=amountString> for <WPDISPLAY ITEM=desc>. Your goods will be
shipped to you within three working days.
<WPDISPLAY ITEM=header>
<WPDISPLAY FILE=footer.html>
</html>
```

Callback response

You can respond to the WorldPay callback with a callback script of your own sending an appropriate page of HTML which will be displayed to the Shopper in place of the *resultY.html* and *resultC.html* files held for your installation on the WorldPay server. For more information on this option, see [Sending a response to the WorldPay callback](#).

Note: If you do not supply a customised page by either method, then the default WorldPay pages are used. These page will automatically use your header and footer files, if you have provided them.

Parameter Substitution in the Shopper Response Page

Before being passed to the Shopper, the response page is processed by WorldPay for parameter substitution. This enables you to embed details of this particular transaction in the page. You can also embed your standard header and footer and any graphics you wish.

Note: These graphics must be uploaded to the WorldPay server, even if the page is returned as a callback response by your server. Details of parameter substitution can be found in [WorldPay Tags Used in File Substitution](#).

Here is a simple example of HTML for a *resultY.html* page using parameter substitution:

Example:

```
<html>
<form action="https://select.worldpay.com/wcc/purchase"
method=POST>
<head>
<title>Thank you for your payment</title>
</head>
<WPDISPLAY FILE=header.html DEFAULT="<body bgcolor=#ffffff">
<h1>My Company Ltd.</h1>
<WPDISPLAY ITEM=name>, thank you for your payment of
<WPDISPLAY ITEM=amountString> for
<WPDISPLAY ITEM=desc>. Your goods will be shipped to you within
three working days.
<WPDISPLAY ITEM=banner>
<WPDISPLAY FILE=footer.html DEFAULT="</body>">
</html>
```

WorldPay Tags Used in File Substitution

All files that WorldPay uses in construction of pages or emails are subject to parameter and file substitution. Substitution is carried out using special WorldPay tags. These tags can be placed anywhere, including within HTML tags.

The following topics look in detail at how WorldPay tags can be used for parameter and file substitution.

- [Substituting the value of a parameter](#)
- [Substituting the value of a display property](#)
- [Embedding the contents of a file](#)
- [Embedding WorldPay tags within other WorldPay tags](#)
- [WorldPay Banner placement](#)

Substituting the Value of a Display Property

Example :

```
<WPDISPLAY DISP="title.bg" DEFAULT="<font color=#000000>"  
PRE="<font color=" POST=">">
```

This will construct a font tag containing the value of the parameter named "title.bg" from *display.properties*. This means that you can use the same parameters that are used in the payment pages in your own templates. You can also add parameters of your own to *display.properties* and use these in your templates.

Embedding the Contents of a File

Example:

```
<WPDISPLAY FILE="inner.txt" DEFAULT="not found">
```

This tag is substituted with the contents of the named file, which should be in your upload area. The embedded file can contain any WorldPay tags except for another file embedding command.

Embedding WorldPay Tags Within Other WorldPay Tags

The strings given as the values of WPDISPLAY attributes can themselves contain WPDISPLAY tags (except for file embedding tags). For example, given a cartId of 123:

Example:

```
<WPDISPLAY FILE="blurb<WPDISPLAY ITEM=cartId>.txt">
```

expands to:

Example:

```
<WPDISPLAY FILE="blurb123.txt">
```

which then results in the embedding of the file "blurb123.txt".

Note: Do not use the same type of quotes in the inner tag: either omit them altogether as in the example above (only viable for single words) or use the other kind (single versus double quote):

Example:

```
<WPDISPLAY FILE="blurb<WPDISPLAY ITEM='cartId'>.txt">
```

WorldPay Banner Placement

WorldPay always puts a standard banner into the final payment response page containing certain information that must be conveyed to the Shopper. The rest of this page is under the control of the customer, as described in the section [Shopper's Response Page](#). The banner is inserted at the point of the following tag:

Example:

```
<WPDISPLAY ITEM="banner">
```

If the customer forgets to include that tag, the banner is placed immediately after the BODY tag. If there is no BODY tag, then the banner is inserted at the top of the output.

Testing Your Installation

WorldPay provides special test accounts to enable you to test your installation. These test accounts operate exactly as live accounts but no funds are actually transferred and there is no communication with the bank. Hence you will be able to see statements and test all other account administration without having to involve the bank. When you register with WorldPay you will be given two separate accounts for each method of payment and currency you will be using. One will be a test account and the other your live account.

Initially the live account is not enabled for transactions so there is no risk of accidentally triggering a live transaction until you and WorldPay have agreed that you are ready to "go live". If you try to submit a live payment you will receive an error message telling you that there are no appropriate accounts to process your payment.

When you are testing your site you should set the *testMode* parameter for your payment to one of the test mode values listed in the section [Test Modes](#). Even when your site has gone live you can still continue to submit test transactions by setting the *testmode* parameter for those transactions.

Statements and configuration options for all your accounts, both live and test can found on the Customer Management System (CMS). All your test transactions will appear on the statement for your test account and live transactions on the live account statement.

This section includes information on the following topics:

- [Test Modes](#)
- [Parallel Test and Live Installations](#)
- [Preferred Accounts](#)

Test Modes

The test mode is set for each individual transaction and is controlled via the *testMode* parameter when a payment is submitted. Any non-zero mode indicates a test transaction. In addition, the specific value controls the response to the attempt to authorise the payment.

Test Mode	Description
101	Always No, equivalent to a declined authorisation at the bank but no funds transferred
100	Always Yes, equivalent to a successful authorisation at the bank but no funds transferred
0	Live, transaction is sent to bank for the standard authorisation process with resultant funds transfer if successful

Parallel Test and Live Installations

Once your site is live you might wish to continue development on a separate test site without affecting your live site. You can do this by asking WorldPay to set up one or more additional installations.

Note: All installations share the same set of accounts so you must ensure that your test sites always submit transactions in test mode. If you accidentally omit the *testMode* or set it to 0 then you will trigger a live payment. If you are using a list of preferred accounts then ensure that this includes only test accounts as an additional safeguard.

Preferred Accounts

If you are using the facility to specify the preferred accounts for processing a payment you can include both live and test accounts in the list. The first account that matches the transaction for *testMode*, *currency* and *authMode*, if specified, will be used for processing.

Going Live

Once you have tested your site and are satisfied that it works, you can request that we set it live. The following topics go through the steps involved in setting your site live.

- [Completing the Activation Request Form](#)
- [Setting your accounts live](#)
- [Testing the live accounts](#)

Completing the Activation Request Form

So that we can start the process of setting your site live, you must fill in the online Activation Request Form at

<https://secure.worldpay.com/app/arf.pl>

Once we have received your completed ARF, it should take 24 to 48 hours to activate your site as long as it works correctly and all your paperwork is in order.

Filename: SJIG7100 Edition: 1.23

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For further information and support refer to our [Contact Details](#).

Setting Your Accounts Live

Once WorldPay receive your Activation Request Form, we carry out a Quality Assessment of your site and confirm connections with the banking system. We subsequently set you live on our system and require you, or whoever maintains your site, to do the following.

You should remove any reference to a test mode in the calls to our system. This will mean that the transaction will be in live mode. You can do this in one of two ways. Either delete the following line of code that identifies the transaction as a test transaction:

```
<input type=hidden name="testMode" value="100"> or  
<input type=hidden name="testMode" value="101">
```

Alternatively, if you want to be able to use the site for testing in the future, you can change this line to

```
<input type=hidden name="testMode" value="0">
```

Testing the Live Accounts

Once the accounts have been set live by both parties, we recommend that you check your site by running through the payment process. Do this once using the following dummy credit card number:

4000 0000 0000 0002

and a valid expiry date (any month and year within the next 7 years will do). You can optionally also enter "123" as a dummy card security code. This should return a declined transaction. If this is the case, please carry out a test transaction with a live credit card.

If the live transaction fails, please take a careful note of the attempted transaction and e-mail your local [technical support](#) team with this information, pasted into the email rather than attached, to help troubleshoot the problem.

If you have any other questions, then please do not hesitate to contact your local [Technical Support](#) team.

Information Services

Services are being developed to provide information from the "info" servlet on the WorldPay server. At the moment, there is an information service available to the Customer which supplies the current exchange rates.

For more information on this option, see [Exchange Rates](#)

Exchange Rates

The exchange rates used by WorldPay are updated every 24 hours at midnight GMT. These rates are then guaranteed for the next 24 hours for all transactions through WorldPay. You can obtain a file containing the exchange rates that are valid for the current day or, after 18:00 GMT, you can request the file for the next day.

This section includes information on the following topics:

- [Requesting the latest exchange rates file](#)
- [The exchange rates file.](#)

Request the Latest Exchange Rates File

To obtain the latest exchange rates file, using an example Installation ID of "1234" and an example Information password of "abcd", you would need to request the following URL:

Example:

```
https://select.worldpay.com/wcc/info?op=rates&instId=1234&infoPW=abcd
```

The *infoPW* is set up via the *Customer Management System* and is initially left blank. You can, therefore, omit the *infoPW* parameter if you have not specified a password via *CMS*.

You can specify different values for "op" to obtain different exchange rates files as follows:

op=rates or op=rates-latest	Returns the latest available exchange rates. This is usually for the current day but if any data is missing then data from previous days is used and the returned field "allRatesCurrent" is set to false. "allRatesCurrent" is true if all the data is for the current day.
op=rates-today	Returns the rates for today. If any or all of the data is missing then an error message is returned. "allRatesCurrent" is always true.
op=rates-tomorrow	Returns the rates that will be used for the next working day. If any or all of the data is missing then an error message is returned. This data is only available after 18:00 GMT and is valid from midnight GMT. "allRatesCurrent" is always true.

The Exchange Rates File

If an exchange rates file is successfully generated then it is returned as a http response with content-type "text/plain" and has the following format:

Example:

```
#Exchange rates for installation 1234
#Fri Sep 28 10:25:37 GMT+00:00 2001
rateDateMillis=1001635200000
GBP_SEK=16.125164729479625
GBP_GBP=1.0
allRatesCurrent=true
GBP_JPY=174.28009178686133
rateDateString=2001-09-28
GBP_NZD=3.700443299768331
GBP_EUR=1.6173201897996292
GBP_CHF=2.3733538756347174
GBP_AUD=3.0421914811575412
GBP_SGD=2.61003882026893
GBP_NOK=12.885850286581093
GBP_CAD=2.328469752766523
GBP_RUR=43.66890329071026
GBP_ZAR=13.06138438810193
GBP_USD=1.4821286404310512
GBP_DKK=12.04706314879048
GBP_HKD=11.560157417867403
```

This is a standard Java properties file format. The lines prefixed by # are comments and are always present at the top of the file. The date in the comment at the head of the file is the date and time of generation of this file. All other lines are of the form: <property name>=<value>

The property names for the exchange rates are given as: <source ISO code>_<destination ISO code>

For example,

```
GBP_USD=1.4821286404310512
```

means that to convert from US Dollars to Pounds Sterling you must divide by the given number. Rates are given for converting from all your settlement currencies to all your acquisition currencies.

Note: The <property name>=<value> lines are generated in a random order so you cannot rely on any particular ordering of the items.

The other properties present in the file are as follows:

Property	Definition
rateDateMillis	The date and time from which the rates are valid (always midnight GMT), expressed as milliseconds since the start of 1970. This is the standard system date in Java.
rateDateString	Expresses this date as "yyyy-mm-dd". The rates are valid for 24 hours (i.e. until midnight GMT the next day).
allRatesCurrent	Set to true if the rates are all for the date requested. If some rates are from a previous day then it is set to false. This only happens if you request op=rates or op=rates-latest.

If a rates file cannot be generated then the content-type returned is text/html and starts with the string "Error:". Hence you can check for an error either by testing the content type or parsing the first line of the content. The rest of the content for an error is a human-readable description of the problem.

Configuring Your Installation

Facilities for configuring your installations are found on the *Customer Management System (CMS)*. When you log on, you are presented with a list of all your installations and three buttons to take you to various configuration options. These options enable you to upload files and change various installation settings to determine how your installation looks and behaves.

For general information on how to access and use the *Customer Management System*, see the [Guide to Using the Customer Management System](#).

For detailed information about how to customise your installations, see the separate [Payment Page Editor User Guide](#).

File Management

The *File Management* facility enables you to upload customised template and property files to replace the default files used to build the WorldPay payment pages. This option is also available in the *Look Feel Configuration Options* section.

Look Feel Configuration Options

When you click on the *Look Feel Configuration Options* button, you are taken to the *Payment Page Menu*. This provides an easy way to customize the WorldPay Payment Pages. The *Payment Page Menu* enables you to:

- change colours
- change fonts
- change button images
- add your own headers and footers
- add text to the email receipt sent to your Shoppers on completion of a successful transaction
- select the languages in which you want the Payment Page to be available to your Shoppers
- backup and restore Payment Pages
- copy a Payment Page across several WorldPay installations
- manage the files required to build the Payment Pages
- select pre-defined templates

Configuration Options

Configuration Options enables you to change various installation settings such as the URL of your shop and whether you want to enable the callback, callback response and callback password facility.

Appendices

These appendices provide supplementary reference information on the following topics:

- [Appendix A - WorldPay Parameters](#) lists and explains the parameters used throughout the WorldPay payment process
- [Appendix B - Currency Codes](#) lists the ISO currency codes that should be used to describe the currencies used by your shop
- [Appendix C - Country Codes](#) lists the ISO country codes that should be used to describe the Shopper's country.
- [Appendix D - Statement Fields](#) lists the fields that appear on statements generated by the Customer Management System
- [Appendix E - WorldPay Contact Details](#) gives details of the Technical Support departments in each of our regional centres.

Appendix A - WorldPay Parameters

Each parameter must be named precisely as indicated in these notes as matching is case-sensitive. All parameters are available for substitution into templates, provided that the transaction has reached that stage e.g. there would not be a *transStatus* value available before a transaction had been processed to completion. If you use an unavailable parameter in substitution then the default as specified in the substitution tag will be used.

Initiating a Purchase Transaction

Certain parameters must be supplied by the customer to initiate a purchase, others are optional. Where a length in characters is given, this is the maximum length that the Select database can store. Anything longer will be truncated.

Parameter Name	Type	Obligatory?	In purchase token?	Description
instId	integer	Yes	Yes	The WorldPay ID for this installation
resultFile	string	-	-	The name of one of your uploaded files, which will be used in the Configuring your Installation . If this is not specified, the default file name is described in Payment Response .
cartId	255 char	Yes	Yes	A parameter for your own reference number for this purchase, which is returned with the authorisation results by whatever method you choose (email and / or server callback).
desc	255 char	-	-	A textual description of this purchase (up to 255 characters). This is used in statements and emails for yourself and the shopper.
amount	Decimal	Yes	Yes	A decimal number giving the cost of the purchase in the chosen currency. For example 12.56 would mean 12 pounds and 56 pence if the chosen currency is the pound. Note that the decimal separator must be a dot (.), not a comma (,). The decimal separator convention for the chosen currency. The decimal separator must be a dot (.), not a comma (,). The amount is an integral multiple of the major currency unit. Note the use of separators, for example between thousands.
currency	3 char	Yes	Yes	3 letter ISO code for the currency of this payment - see Currency Codes .
accId<n>	integer	-	Yes	Specifies which customer account should receive funds. The default is the first server tries accId1. If this is invalid for any reason, the system will try accId2, find based on the <i>testMode</i> value and the currency code. If none of these accounts, but this is useful if you have multiple live accounts.
authMode	char	-	Yes	Specifies the authorisation mode to use. This is only used when using different authorisation modes, in order to specify which mode to use. If an account with a matching authMode then the transaction will be authorised. Full auth, or "E" for a pre-auth. In the response , this is returned as "A" when performing a post-auth (on the admin server).
testMode	integer	-	Yes	An integer specifying that this is a test payment. For testMode=1, which always results in a successful authorisation for the test payment, regardless of card details. The bank is not involved in this for a live transaction. See Testing your Installation .
authValidFrom	integer	-	Yes	Specifies a time window within which the purchase is valid. The purchase is a time-limited special offer. Each of the parameters is in milliseconds since 1 January 1970 GMT - a Java long (System.currentTimeMillis() or Date.getTime()), or 1 if omitted. The authorisation must complete between those two times.
authValidTo	integer	-	Yes	Specifies a time window within which the purchase is valid. The purchase is a time-limited special offer. Each of the parameters is in milliseconds since 1 January 1970 GMT - a Java long (System.currentTimeMillis() or Date.getTime()), or 1 if omitted. The authorisation must complete either before the to time or after the from time. If both are zero or omitted, there are no restrictions on how long the purchase is valid for (although the WorldPay server will time-out the transaction).
name	40 char	-	Yes	The Shopper's full name, including any title, personal name and surname. Note: If you do not pass through a name and use the default cardholder name, the cardholder enters on the payment page will be returned in the server callback.

address	255 char	Yes	Yes	The Shopper's address. Encode newlines as "
 line character)
postcode	12 char	-	-	Shopper's postcode
country		Yes	-	Shopper's country, as 2 character ISO code, uppercase codes .
tel	30 char	-	-	Shopper's telephone number
fax	30 char	-	-	Shopper's fax number
email	80 char	-	-	Shopper's email address

Parameters that control the appearance of the payment pages:

fixContact	needs no value	-	-	if present, causes contact details to be displayed in non-editable format. You must ensure that all mandatory contact details are submitted in your initial request.
hideContact	needs no value	-	-	If present, causes contact details to be hidden. You must ensure that all mandatory contact details are submitted in your initial request. Existing Customers should set the following message files to empty strings for the feature to work: <i>cont.instr.existing</i> , <i>cont.instr.new</i> , <i>cont.heading</i>
lang	6 char	-	-	Shopper's language choice as 2 character ISO 639 code, with optional regionalisation using 2 character country code separated by hyphen. For example "en-GB" specifies UK English. The shopper can always choose a language on the WorldPay pages or via browser preferences but if your site has already made this choice then you can make things more convenient by submitting it to us.
noLanguageMenu	needs no value	-	-	NEW GATEWAY ONLY: Suppresses display of the language menu if you have a choice of languages enabled for your installation but want the choice to be defined by the value of the <i>lang</i> parameter that you submit. Please contact your local Technical Support department if you would like this facility enabled on your account.
withDelivery	needs no value	-	-	NEW GATEWAY ONLY: Display input fields for delivery address and mandate that they be filled in.

Additional parameter for use in testing, only relevant if you are creating your own messages files:

Parameter Name	Type	Obligatory?	In purchase token?	Description
subst	string: "yes" or "no"	-	-	If the value is "no" then message substitution is turned off. This means that you see the names of the message properties from the <i>messages_xx.properties</i> file used to create the page. This situation persists until you submit a payment with <i>subst=yes</i> or your session is ended.

Payment Pages

All of the above parameters are available. In addition the following are available:

Parameter Name	Type	Description
amountString	Variable length char string	An HTML string produced from the amount and currency that were submitted to initiate this purchase
countryString	Variable length char	The full name of the country, derived from the country code submitted

	string	to initiate this purchase or supplied by the shopper
compName	Variable length char string	Name of the company associated with this installation

Payment Response

All of the parameters in the previous two sections are available. At this stage the contact details for the shopper will be those that were used for authorising the payment. authAmount, authCurrency etc. are set to those of the actual transaction carried out. Note that these could be different from the values submitted to WorldPay to initiate the transaction as the shopper may have chosen a different currency.

In addition the following are also available:

Parameter Name	Type	Description				
transId	integer - 16 digits	The WorldPay ID for this transaction				
futurePayId	integer - 16 digits	The WorldPay ID for this FuturePay agreement (where relevant)				
transStatus	1 char	Result of this transaction - "Y" for a successful payment authorisation, "C" for a cancelled payment (note that as a customer you will never see a declined payment as the shopper is always given the option of retrying with another means of payment, or else cancelling the payment).				
transTime	long integer	Time of this transaction in milliseconds since the start of 1970 GMT. This is the standard system date in Java, and is also 1000x the standard C time_t time.				
authAmount	decimal	Amount that this transaction was authorised for, in the currency given as authCurrency.				
authCurrency	3 char	The currency used for authorisation.				
authAmountString	Variable length char string	HTML string produced from authorisation amount and currency				
rawAuthMessage	string	Text received from the bank (typically including an authorisation code, or a reason for failure).				
rawAuthCode	1 char	A single-character bank (or internal WorldPay) authorisation code. This is retained for backward compatibility. 'A' means 'authorised' and is directly equivalent to transStatus='Y'. Failed transactions may have a variety of auth codes which are usually explained more fully in the rawAuthMessage parameter.				
callbackPW	string	The callback password, if you have set it in the WorldPay database via CMS. This is only available in the parameters sent in the callback. It is not available for substitution into the page sent to the shopper.				
cardType	string	The type of card used by the shopper.				
countryMatch	1 char	A single character describing the result of the comparison of the shopper's contact country (where supplied) and the issue country of the card used by the shopper (where available). Note that this parameter is retained for backward compatibilty - equivalent information is now provided as part of the AVS results (see AVS below). Key: <table border="1" data-bbox="534 1953 916 2056"> <tr> <td>Y</td> <td>match</td> </tr> <tr> <td>N</td> <td>no match (ie. mismatch)</td> </tr> </table>	Y	match	N	no match (ie. mismatch)
Y	match					
N	no match (ie. mismatch)					

		<table border="1"> <tr> <td>N</td> <td>no match (ie. mismatch)</td> </tr> <tr> <td>B</td> <td>comparison not available</td> </tr> <tr> <td>I</td> <td>contact country not supplied</td> </tr> <tr> <td>S</td> <td>card issue country not available</td> </tr> </table>	N	no match (ie. mismatch)	B	comparison not available	I	contact country not supplied	S	card issue country not available											
N	no match (ie. mismatch)																				
B	comparison not available																				
I	contact country not supplied																				
S	card issue country not available																				
AVS	4 char	<p>A 4-character string giving the results of 4 internal fraud-related checks. The characters respectively give the results of the following checks:</p> <table border="1"> <tr> <td>1st character</td> <td>Card Verification Value check</td> </tr> <tr> <td>2nd character</td> <td>postcode AVS check</td> </tr> <tr> <td>3rd character</td> <td>address AVS check</td> </tr> <tr> <td>4th character</td> <td>country comparison check (see also countryMatch)</td> </tr> </table> <p>The possible values for each result character are:</p> <table border="1"> <tr> <td>0</td> <td>Not supported</td> </tr> <tr> <td>1</td> <td>Not checked</td> </tr> <tr> <td>2</td> <td>Matched</td> </tr> <tr> <td>4</td> <td>Not match</td> </tr> <tr> <td>8</td> <td>Partially match</td> </tr> </table>	1st character	Card Verification Value check	2nd character	postcode AVS check	3rd character	address AVS check	4th character	country comparison check (see also countryMatch)	0	Not supported	1	Not checked	2	Matched	4	Not match	8	Partially match	
1st character	Card Verification Value check																				
2nd character	postcode AVS check																				
3rd character	address AVS check																				
4th character	country comparison check (see also countryMatch)																				
0	Not supported																				
1	Not checked																				
2	Matched																				
4	Not match																				
8	Partially match																				

Appendix B - Currency Codes

Country	Currency Code	Currency Name	Currency Exponent
Afghanistan	AFA	Afghani	2
Albania	ALL	Lek	2
Algeria	DZD	Algerian Dinar	2
Angola	AON	New Kwanza	2
Argentina	ARS	Argentine Peso	2
Aruba	AWG	Aruban Guilder	2
Australia	AUD	Australian Dollar	2
Austria	EUR	Euro	2
Bahamas	BSD	Bahamian Dollar	2
Bahrain	BHD	Bahraini Dinar	3
Bangladesh	BDT	Taka	2
Barbados	BBD	Barbados Dollar	2
Belgium	EUR	Euro	2
Belize	BZD	Belize Dollar	2
Bermuda	BMD	Bermudian Dollar	2
Bolivia	BOB	Boliviano	2
Bosnia & Herzegovina	BAD	Bosnian Dinar	2
Botswana	BWP	Pula	2
Brazil	BRL	Real	2
Brunei	BND	Brunei Dollar	2
Bulgaria	BGL	Lev	2
Burkina Faso, Mali, Senegal	XOF	CFA Franc BCEAO	0
Burundi	BIF	Burundi Franc	0
Cambodia	KHR	Cambodia Riel	2
Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea, Gabon	XAF	CFA Franc BEAC	0
Canada	CAD	Canadian Dollar	2
Cape Verde	CVE	Cape Verde Escudo	2
Cayman Islands	KYD	Cayman Islands Dollar	2
Chile	CLP	Chilean Peso	2
China	CNY	Yuan Renminbi	2

Colombia	COP	Colombian Peso	2
Comoros	KMF	Comoro Franc	0
Costa Rica	CRC	Costa Rican Colon	2
Croatia	HRK	Croatian Kuna	2
Cuba	CUP	Cuban Peso	2
Cyprus	CYP	Cyprus Pound	2
Czech Republic	CZK	Czech Koruna	2
Denmark	DKK	Danish Krone	2
Djibouti	DJF	Djibouti Franc	0
Dominica	XCD	East Caribbean Dollar	2
Dominican Republic	DOP	Dominican Peso	2
East Timor	TPE	Timor Escudo	2
Ecuador	ECS	Ecuador Sucre	2
Egypt	EGP	Egyptian Pound	2
El Salvador	SVC	El Salvador Colon	2
Estonia	EEK	Kroon	2
Ethiopia	ETB	Ethiopian Birr	2
Europe (European Monetary Cooperation Fund)	EUR	Euro	2
Falkland Islands	FKP	Falkland Islands Pound	2
Fiji	FJD	Fiji Dollar	2
Finland	EUR	Euro	2
France	EUR	Euro	2
French Polynesia	XPF	CFP Franc	0
Gambia	GMD	Dalasi	2
Germany	EUR	Euro	2
Ghana	GHC	Cedi	2
Gibraltar	GIP	Gibraltar Pound	2
Greece	EUR	Euro	0
Guatemala	GTQ	Quetzal	2
Guinea	GNF	Guinea Franc	0
Guinea Bissau	GWP	Guinea - Bissau Peso	2
Guyana	GYP	Guyana Dollar	2
Haiti	HTG	Gourde	2

Honduras	HNL	Lempira	2
Hong Kong	HKD	Hong Kong Dollar	2
Hungary	HUF	Forint	2
Iceland	ISK	Iceland Krona	2
India	INR	Indian Rupee	2
Indonesia	IDR	Rupiah	2
Iran	IRR	Iranian Rial	2
Iraq	IQD	Iraqi Dinar	2
Ireland	EUR	Euro	2
Israel	ILS	Shekel	2
Italy	EUR	Euro	2
Jamaica	JMD	Jamaican Dollar	2
Japan	JPY	Yen	0
Jordan	JOD	Jordanian Dinar	3
Kazakhstan	KZT	Tenge	2
Kenya	KES	Kenyan Shilling	2
Korea	KRW	Won	0
Korea, Democratic Peoples Republic of	KPW	North Korean Won	2
Kuwait	KWD	Kuwaiti Dinar	3
Kyrgyzstan	KGS	Som	2
Lao Peoples	LAK	Kip	2
Latvia	LVL	Latvian Lats	2
Lebanon	LBP	Lebanese Pound	2
Lesotho	LSL	Loti	2
Liberia	LRD	Liberian Dollar	2
Libyan Arab Jamahiriya	LYD	Libyan Dinar	3
Lithuania	LTL	Lithuanian Litas	2
Luxembourg	EUR	Euro	2
Macau	MOP	Pataca	2
Macedonia (the former Yugoslav)	MKD	Denar	2
Madagascar	MGF	Malagasy Franc	0
Malawi	MWK	Kwacha	2
Malaysia	MYR	Malaysian Ringitt	2

Maldives	MVR	Rufiyaa	2
Malta	MTL	Maltese Lira	2
Mauritania	MRO	Ouguiya	2
Mauritius	MUR	Mauritius Rupee	2
Mexico	MXN	Mexico Peso	2
Mongolia	MNT	Mongolia Tugrik	2
Morocco	MAD	Moroccan Dirham	2
Mozambique	MZM	Metical	2
Myanmar	MMK	Myanmar Kyat	2
Namibia	NAD	Namibian Dollar	2
Nepal	NPR	Nepalese Rupee	2
Netherland Antilles	ANG	Netherlands Antilles Guilder	2
Netherlands	EUR	Euro	2
New Zealand	NZD	New Zealand Dollar	2
Nicaragua	NIO	Cordoba Oro	2
Nigeria	NGN	Naira	2
Norway	NOK	Norwegian Krone	2
Oman	OMR	Rial Omani	3
Pakistan	PKR	Pakistan Rupee	2
Panama	PAB	Balboa	2
Papua, New Guinea	PGK	New Guinea Kina	2
Paraguay	PYG	Guarani	0
Peru	PEN	Nuevo Sol	2
Philippines	PHP	Philippine Peso	2
Poland	PLN	New Zloty	2
Portugal	EUR	Euro	2
Qatar	QAR	Qatari Rial	2
Romania	ROL	Leu	2
Russian Federation	RUR	Russian Ruble	0
Rwanda	RWF	Rwanda Franc	2
Samoa	WST	Tala	2
Sao Tome & Principe	STD	Dobra	2
Saudi Arabia	SAR	Saudi Riyal	2

Seychelles	SCR	Seychelles Rupee	2
Sierra Leone	SLL	Leone	2
Singapore	SGD	Singapore Dollar	2
Slovakia	SKK	Slovak Koruna	2
Slovenia	SIT	Tolar	2
Solomon Islands	SBD	Solomon Islands Dollar	2
Somalia	SOS	Somalia Shilling	2
South Africa	ZAR	Rand	2
Spain	EUR	Euro	2
Sri Lanka	LKR	Sri Lanka Rupee	2
St Helena	SHP	St Helena Pound	2
Sudan	SDP	Sudanese Pound	2
Suriname	SRG	Suriname Guilder	2
Swaziland	SZL	Swaziland Lilangeni	2
Sweden	SEK	Sweden Krona	2
Switzerland	CHF	Swiss Franc	2
Syrian Arab Republic	SYP	Syrian Pound	2
Taiwan, Republic of China	TWD	New Taiwan Dollar	2
Tajikistan	TJR	Tajik Ruble	0
Tanzania	TZS	Tanzanian Shilling	2
Thailand	THB	Baht	2
Tonga	TOP	Tonga Pa'anga	2
Trinidad & Tobago	TTD	Trinidad & Tobago Dollar	2
Tunisia	TND	Tunisian Dinar	3
Turkey	TRL	Turkish Lira	2
Uganda	UGX	Uganda Shilling	0
Ukraine	UAH	Ukrainian Hryvnia	2
United Arab Emirates	AED	United Arab Emirates Dirham	2
United Kingdom	GBP	Pounds Sterling	2
United States of America	USD	US Dollar	2
Uruguay	UYU	Uruguayan Peso	2
Vanuatu	VUV	Vanuatu Vatu	0

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Venezuela	VEB	Venezuela Bolivar	2
Vietnam	VND	Viet Nam Dong	2
Yemen	YER	Yemeni Rial	2
Yugoslavia	YUM	Yugoslavian New Dinar	2
Zaire	ZRN	New Zaire	2
Zambia	ZMK	Zambian Kwacha	2
Zimbabwe	ZWD	Zimbabwe Dollar	2

Appendix C - Country Codes

This is a list of all the countries represented in the 1994 version of ISO-3166 along with their two letter, three letter, and numeric codes. Select uses the two letter code.

Afghanistan	AF	AFG	004
Albania	AL	ALB	008
Algeria	DZ	DZA	012
American Samoa	AS	ASM	016
Andorra	AD	AND	020
Angola	AO	AGO	024
Anguilla	AI	AIA	660
Antarctica	AQ	ATA	010
Antigua and Barbuda	AG	ATG	028
Argentina	AR	ARG	032
Armenia	AM	ARM	051
Aruba	AW	ABW	533
Australia	AU	AUS	036
Austria	AT	AUT	040
Azerbaijan	AZ	AZE	031
Bahamas	BS	BHS	044
Bahrain	BH	BHR	048
Bangladesh	BD	BGD	050
Barbados	BB	BRB	052
Belarus	BY	BLR	112
Belgium	BE	BEL	056
Belize	BZ	BLZ	084
Benin	BJ	BEN	204
Bermuda	BM	BMU	060
Bhutan	BT	BTN	064
Bolivia	BO	BOL	068
Bosnia and Herzegovina	BA	BIH	070
Botswana	BW	BWA	072
Bouvet Island	BV	BVT	074
Brazil	BR	BRA	076
British Indian Ocean Territory	IO	IOT	086

Brunei Darussalam	BN	BRN	096
Bulgaria	BG	BGR	100
Burkina Faso	BF	BFA	854
Burundi	BI	BDI	108
Cambodia	KH	KHM	116
Cameroon	CM	CMR	120
Canada	CA	CAN	124
Cape Verde	CV	CPV	132
Cayman Islands	KY	CYM	136
Central African Republic	CF	CAF	140
Chad	TD	TCD	148
Chile	CL	CHL	152
China	CN	CHN	156
Christmas Island	CX	CXR	162
Cocos (Keeling) Islands	CC	CCK	166
Colombia	CO	COL	170
Comoros	KM	COM	174
Congo	CG	COG	178
Congo, the Democratic Republic of the	CD	COD	180
Cook Islands	CK	COK	184
Costa Rica	CR	CRI	188
Cote d'Ivoire	CI	CIV	384
Croatia (local name: Hrvatska)	HR	HRV	191
Cuba	CU	CUB	192
Cyprus	CY	CYP	196
Czech Republic	CZ	CZE	203
Denmark	DK	DNK	208
Djibouti	DJ	DJI	262
Dominica	DM	DMA	212
Dominican Republic	DO	DOM	214
East Timor	TP	TMP	626
Ecuador	EC	ECU	218
Egypt	EG	EGY	818
El Salvador	SV	SLV	222
Falkland Islands (Malvinas)	FK	FLK	238
Faroe Islands	FO	FRO	234

Fiji	FJ	FJI	242
Finland	FI	FIN	246
France	FR	FRA	250
France, Metropolitan	FX	FXX	249
French Guiana	GF	GUF	254
French Polynesia	PF	PYF	258
French Southern Territories	TF	ATF	260
Gabon	GA	GAB	266
Gambia	GM	GMB	270
Georgia	GE	GEO	268
Germany	DE	DEU	276
Ghana	GH	GHA	288
Gibraltar	GI	GIB	292
Greece	GR	GRC	300
Greenland	GL	GRL	304
Grenada	GD	GRD	308
Guadeloupe	GP	GLP	312
Guam		GUM	316
Guatemala	GT	GTM	320
Guinea	GN	GIN	324
Guinea-Bissau	GW	GNB	624
Guyana	GY	GUY	328
Haiti	HT	HTI	332
Heard and Mc Donald Islands	HM	HMD	334
Holy see (Vatican City State)	VA	VAT	336
Honduras	HN	HND	340
Hong Kong	HK	HKG	344
Hungary	HU	HUN	348
Iceland	IS	ISL	352
India	IN	IND	356
Indonesia	ID	IDN	360
Iran (Islamic Republic of)	IR	IRN	364
Iraq	IQ	IRQ	368
Ireland	IE	IRL	372
Israel	IL	ISR	376
Italy	IT	ITA	380

Jamaica	JM	JAM	388
Japan	JP	JPN	392
Jordan	JO	JOR	400
Kazakhstan	KZ	KAZ	398
Kenya	KE	KEN	404
Kiribati	KI	KIR	296
Korea, Democratic People's Republic of	KP	PRK	408
Korea, Republic of	KR	KOR	410
Kuwait	KW	KWT	414
Kyrgyzstan	KG	KGZ	417
Lao People's Democratic Republic	LA	LAO	418
Latvia	LV	LVA	428
Lebanon	LB	LBN	422
Lesotho	LS	LSO	426
Liberia	LR	LBR	430
Libyan Arab Jamahiriya	LY	LBY	434
Liechtenstein	LI	LIE	438
Lithuania	LT	LTU	440
Luxembourg	LU	LUX	442
Macau	MO	MAC	446
Macedonia, the former Yugoslav Republic of	MK	MKD	807
Madagascar	MG	MDG	450
Malawi	MW	MWI	454
Malaysia	MY	MYS	458
Maldives	MV	MDV	462
Mali	ML	MLI	466
Malta	MT	MLT	470
Marshall Islands	MH	MHL	584
Martinique	MQ	MTQ	474
Mauritania	MR	MRT	478
Mauritius	MU	MUS	480
Mayotte	YT	MYT	175
Mexico	MX	MEX	484
Micronesia, Federated States of	FM	FSM	583
Moldova, Republic of	MD	MDA	498
Monaco	MC	MCO	492

Mongolia	MN	MNG	496
Montserrat	MS	MSR	500
Morocco	MA	MAR	504
Mozambique	MZ	MOZ	508
Myanmar	MM	MMR	104
Namibia	NA	NAM	516
Nauru	NR	NRU	520
Nepal	NP	NPL	524
Netherlands	NL	NLD	528
Netherlands Antilles	AN	ANT	530
New Caledonia	NC	NCL	540
New Zealand	NZ	NZL	554
Nicaragua	NI	NIC	558
Niger	NE	NER	562
Nigeria	NG	NGA	566
Niue	NU	NIU	570
Norfolk Island	NF	NFK	574
Northern Mariana Islands	MP	MNP	580
Norway	NO	NOR	578
Oman	OM	OMN	512
Pakistan	PK	PAK	586
Palau	PW	PLW	585
Palestinian Territory, occupied	PS	PSE	275
Panama	PA	PAN	591
Papua New Guinea	PG	PNG	598
Paraguay	PY	PRY	600
Peru	PE	PER	604
Philippines	PH	PHL	608
Pitcairn	PN	PCN	612
Poland	PL	POL	616
Portugal	PT	PRT	620
Puerto Rico	PR	PRI	630
Qatar	QA	QAT	634
Reunion	RE	REU	638
Romania	RO	ROM	642
Russian Federation	RU	RUS	643

Rwanda	RW	RWA	646
Saint Kitts and Nevis	KN	KNA	659
Saint Lucia	LC	LCA	662
Saint Vincent and the Grenadines	VC	VCT	670
Samoa	WS	WSM	882
San Marino	SM	SMR	674
Sao Tome and Principe	ST	STP	678
Saudi Arabia	SA	SAU	682
Senegal	SN	SEN	686
Seychelles	SC	SYC	690
Sierra Leone	SL	SLE	694
Singapore	SG	SGP	702
Slovakia (Slovak Republic)	SK	SVK	703
Slovenia	SI	SVN	705
Solomon Islands	SB	SLB	090
Somalia	SO	SOM	706
South Africa	ZA	ZAF	710
South Georgia and the South Sandwich Islands	GS	SGS	239
Spain	ES	ESP	724
Sri Lanka	LK	LKA	144
St. Helena	SH	SHN	654
St. Pierre and Miquelon	PM	SPM	666
Sudan	SD	SDN	736
Suriname	SR	SUR	740
Svalbard and Jan Mayen Islands	SJ	SJM	744
Swaziland	SZ	SWZ	748
Sweden	SE	SWE	752
Switzerland	CH	CHE	756
Syrian Arab Republic	SY	SYR	760
Taiwan, Republic of China	TW	TWN	158
Tajikistan	TJ	TJK	762
Tanzania, United Republic of	TZ	TZA	834
Thailand	TH	THA	764
Togo	TG	TGO	768
Tokelau	TK	TKL	772

Tonga	TO	TON	776
Trinidad and Tobago	TT	TTO	780
Tunisia	TN	TUN	788
Turkey	TR	TUR	792
Turkmenistan	TM	TKM	795
Turks and Caicos Islands	TC	TCA	796
Tuvalu	TV	TUV	798
Uganda	UG	UGA	800
Ukraine	UA	UKR	804
United Arab Emirates	AE	ARE	784
United Kingdom	GB	GBR	826
United States	US	USA	840
United States minor outlying islands	UM	UMI	581
Uruguay	UY	URY	858
Uzbekistan	UZ	UZB	860
Vanuatu	VU	VUT	548
Venezuela	VE	VEN	862
Viet Nam	VN	VNM	704
Virgin Islands (British)	VG	VGB	092
Virgin Islands (U.S.)	VI	VIR	850
Wallis and Futuna Islands	WF	WLF	876
Western Sahara	EH	ESH	732
Yemen	YE	YEM	887
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Zambia	ZM	ZMB	894
Zimbabwe	ZW	ZWE	716

Taken from <ftp://ftp.ripe.net/iso3166-countrycodes>.

Appendix D -Statement Fields

Within CMS, it is possible to arrange for statements of transactions to be displayed either as formatted HTML, or in a machine-readable comma-separated value format that you can open in a spreadsheet package such as Excel.

The CSV format can also be emailed automatically to your contact address, at an interval you decide. For more information about this option, see the Guide to Using the Customer Management System.

Available Fields in CSV Reports

The ordering of these fields is configurable.

Please note that the Examples and Notes are for guidance purposes only. Some fields, particularly those which are derived from information sent to us by the acquiring institutions, are subject to change, and we cannot provide an exhaustive list of all possible values.

Some fields are not relevant for all transaction types: such fields are left blank, so that all records contain the same number of fields.

This information also applies to the formatted HTML reports which can be viewed online, except that some of the integer codes are expanded to descriptive text directly in the display.

Field	Description	Type	Example	Notes																								
Trans Id	The unique transaction ID allocated by WorldPay for this entry.	Integer	98765432																									
Trans Type	The type of the transaction	Integer	1	<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Purchase</td> </tr> <tr> <td>2</td> <td>Refund</td> </tr> <tr> <td>3</td> <td>Chargeback</td> </tr> <tr> <td>4</td> <td>Settlement</td> </tr> <tr> <td>10</td> <td>Adjustment</td> </tr> <tr> <td>11</td> <td>Payment on account</td> </tr> <tr> <td>12</td> <td>Inter-MerchantAccount transfer debit</td> </tr> <tr> <td>13</td> <td>Inter-MerchantAccount transfer credit</td> </tr> <tr> <td>15</td> <td>Special credit</td> </tr> <tr> <td>16</td> <td>Repayment under guarantee</td> </tr> <tr> <td>17</td> <td>Special debit</td> </tr> </tbody> </table>	Value	Meaning	1	Purchase	2	Refund	3	Chargeback	4	Settlement	10	Adjustment	11	Payment on account	12	Inter-MerchantAccount transfer debit	13	Inter-MerchantAccount transfer credit	15	Special credit	16	Repayment under guarantee	17	Special debit
Value	Meaning																											
1	Purchase																											
2	Refund																											
3	Chargeback																											
4	Settlement																											
10	Adjustment																											
11	Payment on account																											
12	Inter-MerchantAccount transfer debit																											
13	Inter-MerchantAccount transfer credit																											
15	Special credit																											
16	Repayment under guarantee																											
17	Special debit																											
Authorise Time	The time (in the GMT/UTC timezone) that the transaction took place.	Date-Time	2001-01-30 15:55:10.22																									
Trans Status	The result of the initial authorisation.	Integer	1	<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Failed</td> </tr> <tr> <td>1</td> <td>Authorised</td> </tr> </tbody> </table>	Value	Meaning	0	Failed	1	Authorised																		
Value	Meaning																											
0	Failed																											
1	Authorised																											

Process Status	The status of the transaction through the various stages of acquirer processing.	Integer	1	Value	Meaning
				1	Accepted
				2	Pending
				3	Rejected
Trans Amount	Two fields representing the currency and decimal amount of the transaction in the displayed (shopper's) currency.	3 char; decimal number	USD,150.00		
Converted Amount	Two fields representing the currency and decimal amount of the transaction in the settlement (merchant's) currency.	3 char; decimal number	GBP,100.00		
Exchange Rate	The currency exchange rate in force at the time of the transaction.	Decimal number	3.4762385		
Total MSC	Two fields representing the currency and decimal amount of the service charge deducted by WorldPay.	3 char; decimal number	GBP,4.50		
GSC	Two fields representing the currency and decimal amount of the guarantee service charge deducted by WorldPay.	3 char; decimal number	GBP,1.00		
VAT	Two fields representing the currency and decimal amount of the VAT on the service charges.	3 char; decimal number	GBP,0.50		
Settle Amount	Two fields representing the currency and decimal amount of the money credited to the merchant.	3 char; decimal number	GBP,94.00		
Cart Id	The unique reference supplied by the merchant at the time of the transaction.	Text	193641-82984952-9164651	Maximum 255 characters, arbitrary text.	
Description	The description supplied by the merchant at the time of the transaction.	Text	A purchase from XYZ Ltd.	Maximum 255 characters, arbitrary text.	
Name	The name of the shopper, as entered on the payment form.	Text	Mr Q Smith	Maximum 255 characters, arbitrary text.	
Address	The postal address of the shopper, as entered on the payment form.	Text	100 High Street Anytown	Maximum 255 characters, arbitrary text. Line-breaks are allowed.	
Postcode/Zipcode	The postal code of the shopper's address, as entered on the payment form.	Text	AY5 2AA		
Country Code	The 2-letter ISO code for the country of the	2 char	GB		

				<table border="1"> <tr> <td>14</td> <td>Thistle Hotels Founder</td> </tr> <tr> <td>15</td> <td>Thistle Hotels Regular</td> </tr> <tr> <td>16</td> <td>LTF Credit</td> </tr> <tr> <td>17</td> <td>LTF Edge</td> </tr> </table>	14	Thistle Hotels Founder	15	Thistle Hotels Regular	16	LTF Credit	17	LTF Edge														
14	Thistle Hotels Founder																									
15	Thistle Hotels Regular																									
16	LTF Credit																									
17	LTF Edge																									
Agreement Id	The FuturePay agreement number that caused this transaction.	Integer	5078091																							
Agr Trans Cat	The category of FuturePay transaction.	Integer	5078091																							
AVS Results	<p>The 4 digit result of the Address and Security Code verification checks</p> <table border="1"> <thead> <tr> <th>Digit</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>Digit one</td> <td>CVV Result</td> </tr> <tr> <td>Digit two</td> <td>Postcode Result</td> </tr> <tr> <td>Digit three</td> <td>Address Result</td> </tr> <tr> <td>Digit four</td> <td>Card Issuer Country Result</td> </tr> </tbody> </table>	Digit	Meaning	Digit one	CVV Result	Digit two	Postcode Result	Digit three	Address Result	Digit four	Card Issuer Country Result	Integer	2222	<p>For more detail about the meaning of these responses, see the CMS User Guide</p> <table border="1"> <thead> <tr> <th>Value</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Not supported</td> </tr> <tr> <td>1</td> <td>Not checked</td> </tr> <tr> <td>2</td> <td>Matched</td> </tr> <tr> <td>4</td> <td>Not matched</td> </tr> <tr> <td>(8)</td> <td>Partially matched</td> </tr> </tbody> </table>	Value	Result	0	Not supported	1	Not checked	2	Matched	4	Not matched	(8)	Partially matched
Digit	Meaning																									
Digit one	CVV Result																									
Digit two	Postcode Result																									
Digit three	Address Result																									
Digit four	Card Issuer Country Result																									
Value	Result																									
0	Not supported																									
1	Not checked																									
2	Matched																									
4	Not matched																									
(8)	Partially matched																									

Appendix E - WorldPay Contact Details

If you have any problems or queries, please contact your regional support team with the following information:

- Your Company name
- Your WorldPay ID
- The purpose of your query

Emails are given priority. When you email you will receive a reference number that should be used in any correspondence relating to your query.

Europe, Middle East and Africa

Email: support@worldpay.com

The Americas

Email: support@usa.worldpay.com

Asia Pacific and Australia

Email: support@asiapac.worldpay.com

Technical Notes

Technical Notes are items of additional information generated by our highly experienced Support staff in response to specific customer queries. They provide information that is not included in the documentation as well as clarifications and corrections to information in the documentation.

Technical Notes are added to our online support *Knowledgebase* as soon as possible after their creation, so that the information is available to all our Customers straightaway.

Note: As a result they undergo less rigorous validation than our documentation.

We also queue *Technical Notes* for incorporation into the relevant Guides and/or Help systems. Each Guide includes a *Technical Notes* section to which *Technical Notes* are added as they become available. While this means that the information is associated with the right guide, the information has been appended rather than integrated.

When we incorporate the information contained in a *Technical Note*, we indicate this in the Document Record section included in each Guide/Help system. The inclusion of such information will usually be associated with the creation of a new issue of the Guide/Help system.

Technical Notes included in this guide at the moment are as follows:

- [I copied the Select Junior HTML code from the guide and it doesn't work](#)
- [Customer has no suitable accounts for this purchase](#)
- [I get a WorldPay processing error when I attempt a transaction](#)
- [Some of my chosen currencies are missing from the currency selector box](#)
- [Passing Shopper address details to WorldPay as fixed data](#)
- [Select Junior Example Sites](#)
- [Using callback response just returns the WorldPay default page](#)
- [MD5 and Select Junior](#)

I copied the Select Junior HTML code from the guide and it doesn't work

Double check that you have copied the code correctly. In particular, check the case of the parameter names as they are case-sensitive. For example, 'testmode' should read 'testMode'.

Also be sure to check that the punctuation and spacing of your code matches the example Select Junior HTML code.

For a full list of the parameter names, see [WorldPay Parameters](#).

Merchant has no suitable accounts for this purchase

Every WorldPay account has two parts to it:

- The *Test account* is where all your test purchases go through when you are integrating your web site with WorldPay and testing your site prior to going live.
- The *Live Account* is where all your actual live purchases go through when the integration of your web site with WorldPay's payment pages is finished and passed by the activation team. Until that time it is inactive.

These parts are commonly referred to as the *account pair*.

When testing, you must always use the 'testMode' parameter with its value set to '100' or '101' until you are notified that your site has been made live. For example:

Example:

```
<input type=hidden name="testMode" value="100">
```

If the value is prematurely set to '0', the purchase reaching our site will have a value which will not match the value on our system. This will cause the mismatch error, "Merchant has no suitable accounts for this purchase". You may also receive the error message, "No currency value/variable is being passed across"

I get a WorldPay processing error when I attempt a transaction

This error message usually occurs while a Customer is in the process of integrating their site with the WorldPay payment pages using *Select Junior*. The most common causes are that an unknown character is being included in the values for the parameters or no value is being supplied at all. For example:

Example:

```
<input type=hidden name="instId" value="#12345">
```

The # symbol would cause an error to occur when the content of the form is posted to the WorldPay secure server because the server is not expecting the value of *InstId* to contain a non-numeric character.

Check all the parameter names and values against the integration guide to ensure they are set out correctly. In particular, make sure the case of the parameter names and values are the same as in the guide, as the system is case-sensitive.

Some of my chosen currencies are missing from the currency selector box

Check that you are using the correct WorldPay Installation ID. If this is correct, then they may not all have been added to our system. Please contact our Customer Acceptance department on applications@uk.worldpay.com for assistance.

Passing Shopper address details to WorldPay as fixed data

If you pass billing address details for the Shopper from your site to WorldPay, these are automatically placed into any billing address fields that the Shopper would be required to fill in on the WorldPay server. The Shopper may change any address details that you pass to us, however, unless you pass the details to us as fixed data.

To do this, you need to

- make the billing address fields mandatory on your site
- pass through an additional parameter in your form called *fixContact*.

Passing over the *fixContact* parameter locks the contact information passed to WorldPay, so that your Shoppers cannot change this information. It is also possible to hide the contact details from the Shopper when they reach the payment page. This is done using the *hideContact* parameter.

Example:

```
<form action="https://select.worldpay.com/wcc/purchase"
method=POST>
<input type=hidden name="instId" value="1234">
<input type="hidden" name="fixContact">
<input type="hidden" name="hideContact">
<input type=hidden name="cartId" value="101KT0098">
<input type=hidden name="amount" value="25.35">
<input type=hidden name="currency" value="GBP">
<input type=hidden name="desc" value="Blue T-Shirt, Medium">
<input type=hidden name="testMode" value="100">
<input type=hidden name="name" value="J. Bloggs">
<input type=hidden name="address" value="4 Any
St, &#10;Somewhere">
<input type=hidden name="postcode" value="AB10 5AB">
<input type=hidden name="country" value="GB">
<input type=hidden name="tel" value="0123456789">
<input type=hidden name="email" value="demo@uk.worldpay.com">
<input type=submit value="Buy This">
</form>
```

For full information on the parameter names for the contact details, refer to [WorldPay Parameters](#).

"1234" should, of course, be replaced with your own Installation ID, which is issued to you when you sign up to use WorldPay's Select Junior integration method.

Select Junior Example Sites

If you would like to take a look at an example shopping basket prior to building your own, or just need some pointers about how to pass the information you gather to WorldPay, you can visit the following URL:

<http://support.worldpay.com/examples/>

This site has links to a number of model shops that the UK Technical Support team have built to assist you.

Note: we cannot accept responsibility for the smooth running of any sites derived from the code on these example pages. The shops exist merely as examples and are not a supported WorldPay product.

Using callback response just returns the WorldPay default page?

After it has sent a callback to your server, the WorldPay server waits 1 minute for a response page to be returned. If your callback script does not return any valid HTML to WorldPay within a minute, the default payment response pages *resultY.html* or *resultC.html* are displayed in its place.

MD5 and Select Junior

As part of WorldPay's ongoing commitment to safe online trading, we have introduced a new security feature for customers using Select Junior. The new feature enables Select Junior customers to add an encrypted signature to each purchase form they send to WorldPay, using the MD5 message-digest algorithm. This protects the purchase information from unauthorised tampering.

What is MD5?

MD5 is an algorithm designed to create digital signatures that can be used to verify data integrity.

The signatures are created by taking a string or message of arbitrary length and producing an encrypted output as a 128-bit "fingerprint" or "Message Digest". The signatures are highly individual. The designers of MD5 conjecture that it is "computationally infeasible" that two inputs could produce the same output or that a message could be decrypted from the signature alone. It is ideal, therefore, for securing the transfer of purchase information to WorldPay.

Using MD5 with Select Junior

Using MD5, you can choose which purchase form parameters you particularly want WorldPay to check for unauthorised tampering. The values of these parameters are encrypted along with a "secret" key that is only known to yourself and WorldPay. This encrypted signature is sent as an additional parameter in your purchase form along with another parameter telling WorldPay which purchase details have been encrypted and in which order. When the purchase information is received by WorldPay, the MD5 value is checked to ensure that it still corresponds with the transaction parameter values submitted in the form. If there are any discrepancies, the transaction is rejected.

Note: You must still be included all obligatory purchase form parameters in the purchase token you send to WorldPay.

Pre-requisites

To incorporate MD5 security in your store, your store must either:

- use an off-the-shelf shopping cart that has been updated to use MD5 (please consult your cart vendor for advice)
or
- be a bespoke store that has been generated using a programming language that has an MD5 library available, such as C, C++, Visual Basic, PHP, ASP and Perl **but not** HTML or Javascript

Note: HTML and Javascript are unsuitable for this feature because it is essential the encryption process happens server-side to ensure the security of the data.

Implementation for shopping carts

To add MD5 encryption to your site if you have used an off-the-shelf shopping cart, you will need to do the following:

1. **Enable MD5 functionality in your store as advised by your shopping cart provider.** Implementation will vary according to the package that you are using but you are at least likely to need to select which fields are included in the encrypted signature (see [below](#) for advice on choosing fields for inclusion) and supply a "secret" to be used in encrypting the signature. This should be a string (spaces are permitted) of up to 16 characters, known only by yourself and by WorldPay.
2. **Specify your secret to WorldPay.** This secret must be sent to our technical support team at support@worldpay.com so they can add it the *MD5 secret for transactions* box in the configuration settings of your installation.

Note: If you have specified a secret, you **must** sign all transactions correctly otherwise they will be rejected. If you wish to disable the MD5 functionality at any point, please contact support@worldpay.com.

Implementation for bespoke stores

To add MD5 encryption to your site if you have built a bespoke store, you will need to do the following:

1. **Choose a "secret" to be used in encrypting and decrypting the signature.** This should be a string (spaces are permitted) of up to 16 characters, known only by yourself and by WorldPay. The string should be static rather than dynamically generated. This secret must be sent to our technical support team at support@worldpay.com so they can add it the *MD5 secret for transactions* box in the configuration settings of your installation.

Note: If you have specified a secret, you **must** sign all transactions correctly otherwise they will be rejected. If you wish to disable the MD5 functionality at any point, please contact support@worldpay.com.

2. **Choose which of the purchase form parameters you wish to protect with the signature.** You can encrypt whichever parameters you like but we particularly recommend that you include: *amount*, *currency* *instId* and the *cartId* parameter, if it is dynamically generated.
3. **Add a new parameter named *signatureFields* to the purchase form.** This parameter should list the fields you want to include in the encrypted signature as a colon separated list.

Example:

```
<input type=hidden name=signatureFields
value="amount:currency:cartId">
```

4. **Construct a string consisting of the secret and the values of the parameters you want to encrypt.** The items in this string should be separated by colons. So, for example, if you choose the word "password" as your secret and the fields you have chosen to encrypt have the following values: *amount*=123.00, *currency*=GBP and *cart Id*=ABC123, your string should look like this:

Example:

```
password:123.00:GBP:ABC123
```

Note: It is vital that you list the parameter values in the same order in which you listed them in the *signatureFields* parameter.

5. **Calculate an MD5 signature from this string and include the signature in the purchase form.** The MD5 algorithm will return a hexadecimal value 32 characters long. This digital signature should be included in the purchase form as the value of a parameter named *signature*.

Example:

```
<input type=hidden name=signature
value="3365b7d3c5ac46df8a0f359f65e16317">
```

Note: The way you use MD5 encryption is dependent on the code you have used to build your store. We regret we are not able to assist you in incorporating the code into your store but only in how to send that information to WorldPay. We have provided a number of references below to sites that provide information about MD5 and how to use it.

Additional security

As an additional security feature in Select Junior, it is possible to specify a time period for which the purchase transaction is valid. Using this functionality in conjunction with MD5 increases security by limiting the amount of time available for an unauthorised user to attempt to decrypt the transaction.

You can specify a time after which the transaction will be deemed invalid using the parameter *authValidTo*. The value of *authValidTo* should be a date and time given in the Unix time standard, milliseconds since 1st January 1970.

Example:

```
<input type=hidden name=authValidTo value="938736000000">
```

Fifteen minutes is a commonly-used period of validity but you might choose to reduce this time period to 10 or even 5 minutes.

To implement this feature you should:

1. Ensure the clock on your server is synchronised to an accurate time source by using NTP for example, <http://www.eecis.udel.edu/~mills/ntp/servers.html>.
2. Take a time reading from your server at the time of the transaction and convert it to the Unix time standard, if necessary.
3. Multiply the number of seconds you want the purchase token to be valid by 1000 and add this to the time. This will be the value of *authValidTo*.

MD5 References sites

If you would like to find out more about MD5 and how to incorporate it into your store, please refer to the following web sites:

<http://www.rsasecurity.com/rsalabs/faq/3-6-6.html>: RSA Laboratories definition of MD5

<http://userpages.umbc.edu/~mabzug1/cs/md5/md5.html>: details on how to implement MD5 in many program languages

<http://www.faqs.org/rfcs/rfc1321.html>: specification of the MD5 function provided by the inventor at MIT

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