PayWay

API for Microsoft .NET

Version 1.3 26 Aug 2009

Document History

Date	Version	Description
20 Dec 2005	1.0	Initial Version
26 Feb 2008	1.1	Updated example code information for Visual Studio 2005
4 Nov 2008	1.2	Updated for new ZIP structure
26 Aug 2009	1.3	Updated troubleshooting

Table of Contents

1 Introduction

This document gives details on using the PayWay API from a Microsoft .NET application. It details the requirements of your system and gives instruction on how to integrate the .NET API into your system. This document does not contain any details about the API parameters. That information is contained in the "PayWay API Developer's Guide" document which is available for download from the PayWay site in the Downloads section.

2 Installation

2.1 Requirements

The PayWay API for Microsoft .NET requires the .NET Framework 1.1 or higher.

Microsoft Windows 2000 or later is required. If you are using Windows 2000, you must install the Windows 2000 high encryption pack from http://www.microsoft.com/windows2000/downloads/recommended/encryption/.

Refer to Section 2.1 in the "PayWay API Developer's Guide" document for information on how to setup the API.

2.2 What the API Distribution File Contains

The PayWayAPI_net.zip file you download from the PayWay site contains the files and folders listed below:

File/Folder	Description
PayWayAPI.dll	The PayWay API library. You must install this file on each server that will use the API (see section 2.3).
PayWayAPITest.exe	The API connectivity test program (see section3).
PayWay_API_for_NET.pdf	This document.
readme.txt	The quick start documentation file with simple instructions for using the example code.
version.txt	The file containing the version of the API that you are using.
doc/	The folder containing the NDoc for the .NET API.
examples/	The folder containing the example programs demonstrating the use of the PayWayAPI object.
examples/cmd_line/	The folder containing the example program which demonstrates the use of the PayWayAPI object from a command line application.
examples/asp.net1.1/	The folder containing the example program which demonstrates the use of the PayWayAPI object from an ASP.NET 1.1 web application.

File/Folder	Description
examples/asp.net2.0/	The folder containing the example program which demonstrates the use of the PayWayAPI object from an ASP.NET 2.0 web site.
images/	The folder containing card scheme logos. You should display the appropriate logos on your web site to indicate which card types you accept.

2.3 Installation Procedure

- Install the PayWay API as follows:

    1. Extract the `PayWayAPI_net.zip` file to a new directory on the computer. If you are using WinZip, ensure that the **Use Folder Names** option is checked.

- Download your certificate and save it on your computer. Ensure that you pass the full file path and name as the "certificateFile" parameter to the "initialise" method of the PayWayAPI object.

- Choose a log directory and ensure that your application can write to that directory on the computer. Ensure that you pass this value in the "logDirectory" parameter to the "initialise" method of the PayWayAPI object.

2.4 Initialising the PayWayAPI object

Before you can perform transactions with the PayWayAPI object, you must initialise it with a string of initialisation parameters. Please see section 3.1.3 "Initialising the API" in the "PayWay API Developer's Guide" document.

Note that after you have initialised the PayWayAPI object, you can call the "processCreditCard" method on it multiple times. You can also safely use the object from multiple threads at the same time.

2.5 Using the Example Code

2.5.1 Using the Command Line Example Code

- Install the PayWay API on your computer as in section 2.3.

- Download your certificate and save it on your computer. Record this location for use in the initialisation of the PayWayAPI object. Update this value in the `CCAPITester.cs` file.

- Choose a log directory and ensure that your application can write to that directory on the computer. Use this location in the initialisation of the PayWayAPI object. Update this value in the `CCAPITester.cs` file.

- Enter your username and password in the `CCAPITester.cs` file. You may need to add proxy information to the initialisation parameters, as per section 3.1.3 "Initialising the API" in the "PayWay API Developer's Guide" document.

- Compile and run the `CCAPITester.cs` test program, referencing the `PayWayAPI.dll` file installed in section 2.3.

2.5.2 Using the ASP.NET Example Code with Visual Studio 2003

- Install the PayWay API on your web server as in section 2.3. If your web server is not the same as your development workstation, install the PayWay API on your development workstation.

- Using Visual Studio 2003, create a new C# **ASP.NET Web Application** project on your web server. Delete the WebForm1.aspx file from the project.

- Copy the contents of the "examples/asp.net1.1/" directory to your project directory on your web server, replacing any existing files.

- Using Visual Studio, right-click on your project and select Add -> Existing Item. In the file selection dialog, change the **Files of type** option to **All Files (*.*)**. Depending on your configuration, you may also need to change the folder to a network share for your web server. In the file selection dialog, choose the following files:

    - index.htm
    - processCard.aspx
    - processCard.aspx.cs
    - processCard.aspx.resx
    - style.css

- Add a reference to the PayWayAPI.dll to your Visual Studio project.

- Download your certificate and save it on your web server. Record this location for use in the initialisation of the PayWayAPI object. Update this value in the `Global.asax.cs` file.

- Choose a log directory and ensure that your web application can write to that directory on the server. Use this location in the initialisation of the PayWayAPI object. Update this value in the `Global.asax.cs` file.

- Enter your username and password in the `processCard.aspx.cs` file. You may need to add proxy information to the initialisation parameters, as per section 3.1.3 "Initialising the API" in the "PayWay API Developer's Guide" document.

- Build your project. Visual Studio will copy the required files to your web server.

- Using your web browser, browse to index.htm (e.g. http://localhost/card_test/index.htm), then press the Process Capture button. You should receive a successful response from the Qvalent payment server.

2.5.3 Using the ASP.NET Example Code with Visual Studio 2005/2008

- Install the PayWay API on your web server as in section 2.3. If your web server is not the same as your development workstation, install the PayWay API on your development workstation.

- Using Visual Studio 2005 or 2008, create a new C# **ASP.NET Web Site** project on your computer. Delete the Default.aspx file from the project.

- Copy the contents of the "examples/asp.net2.0/" directory to your project directory on your development workstation, replacing any existing files.

- Using Visual Studio, right-click on your project and select Add Existing Item. In the file selection dialog, change the **Files of type** option to **All Files (*.*)**. Depending on your configuration, you may also need to change the folder to a network share for your web server. In the file selection dialog, choose the following files:

    - Global.asax
    - index.htm
    - processCard.aspx
    - processCard.aspx.cs
    - style.css

- Download your certificate and save it on your web server. Record this location for use in the initialisation of the PayWayAPI object. Update this value in the `Global.asax` file.

- Choose a log directory and ensure that your web application can write to that directory on the server. Use this location in the initialisation of the PayWayAPI object. Update this value in the `Global.asax` file.

- Enter your username and password in the `processCard.aspx.cs` file. You may need to add proxy information to the initialisation parameters, as per section 3.1.3 "Initialising the API" in the "PayWay API Developer's Guide" document.

- Right-click the `index.htm` file and select **Set As Start Page**. Press Ctrl-F5 to run the web site in a new browser window, then press the Process Capture button. You should receive a successful response from the Qvalent payment server.

3 PayWay API Command-line Application

To facilitate connectivity and configuration testing of the PayWay API, a sample command line application has been provided. This application helps you check your configuration before developing your own application.

To run the command line program, type the following at your command prompt:

```
PayWayAPITest "certificateFile=ccapi.q0&logDirectory=."
"customer.username=USER&customer.password=PASS&customer.merchant=TEST
```

```
&order.type=capture&card.PAN=4564710000000004&card.CVN=847&card.expir
yYear=09&card.expiryMonth=02&order.amount=1000&customer.orderNumber=0
1&card.currency=AUD&order.ECI=SSL"
```

Please note the following points regarding the command above:

- There is a space between the two command-line arguments (i.e. after the logDirectory part and before the username part):

  ```
  ...logDirectory=." "customer.username=...
  ```

- You must run the above command in a directory that contains the `PayWayAPITest.exe` and `PayWayAPI.dll` files and your certificate file (which is named `ccapi.q0`).

- You should also replace "USER" with your API username, and "PASS" with your API password.

- You may need to add proxy information to the initialisation parameters, as per section 3.1.3 "Initialising the API" in the "PayWay API Developer's Guide" document.

After entering the above command, the result of the test transaction will be displayed. If the result contains a "result.summaryCode" parameter of "0", your test transaction was successful. Note that because this transaction uses your TEST merchant, the transaction will not appear on the cardholder statement or your bank account.

Please see chapter 3 of the "PayWay API Developer's Guide" document for more details on the initialisation parameters and the credit card request parameters.

4 Troubleshooting

The table below describes some of the common errors you may encounter during your implementation phase, and what to do to resolve them.

Error Description	Suggested Resolution
File or assembly name PayWayClient.dll, or one of its dependencies, was not found	Ensure that the `PayWayAPI.dll` file is in correctly referenced from your application.
Certificate from file does not exist or Certificate file format error	Ensure that the "certificateFile" initialisation parameter is set correctly for the "initialise" call (i.e. that the value is the location of the certificate file that you have downloaded). Also, ensure that your application is allowed to read this file.
Specified log directory is not a directory	Ensure that the "logDirectory" initialisation parameter is set correctly for the "initialise" call. Also, ensure that the specified directory is a directory (not a file), and that your application is allowed to write to this directory.

Error Description	Suggested Resolution
System.Security.SecurityException	Check the permissions that are granted to your application. The PayWay API requires the following permissions: ➢ SecurityPermission with the ControlPrincipal flag ➢ FileIOPermission on the log directory and the certificate file ➢ WebPermission for the URI "https://www\.payway\.com\.au/.*"
response.responseCode = QH (Incorrect Customer Username or Password)	Ensure that you have used the correct username and password in the request parameters (i.e. ensure that you have replaced "USER" and "PASS" in the example code).
response.responseCode = QK (Unknown Customer Merchant)	Ensure that the "customer.merchant" request parameter is set to "TEST" (i.e. your test merchant id).
response.responseCode = QJ (Invalid Customer Certificate)	Ensure that you have used the correct certificate file in the "initialise" call (i.e. the "certificateFile" initialisation parameter points to the correct certificate file).
response.responseCode = QU (Unknown Customer IP Address)	The IP address listed in the error message should be added to the IP address list on the PayWay web site. This is found on the "Security" page under the "Setup API" heading.
response.responseCode = QI (Transaction Incomplete)	Check the log file for more information. The most likely cause is that you have not specified the proxy information correctly. Another common cause is that your firewall is not configured to allow outbound SSL connections on port 443.

See Appendix A of the "PayWay API Developer's Guide" document for more information about response codes.