



## Ecompayment Hosted form Integration

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This document describes the integration of online communication between a merchant's e-shop and the Ecompayment hosted system using the Web Services.

With the hosted form method, your user is passed to the Ecompayment gateway where they then enter their card details and receive a response for the transaction, before being re-directed back to your website. Hosted form collect all the credit card data; not the merchant.

The HTML Redirect Integration guide describes how to integrate your Internet shop with our payment gateway using the HTML Redirect model. This is the simplest and easiest method of integration and will work on just about any platform.

Use HTML Redirect if you do not want to collect and store shoppers' payment details or their selected payment method on your own platform. Shoppers are instead, directed to our payment pages.

HTML Redirect means that:

Your shoppers make their payment on Ecompayment's secure payment pages, not your website

Your integration with Ecompayment's payment gateway is faster, simpler and cheaper

## Transaction fields

Field Name	Description	Format	Require
<b>MerchantID</b>	Unique Merchant identifier	Alphanumeric	required
<b>TimeStamp</b>	milliseconds since epoch (since January 1, 1970)	Numeric	required
<b>MerchantTransactionID</b>	Internal Merchant Transaction ID	Alphanumeric	optional
<b>Amount</b>	Amount of Transaction	Alphanumeric	required
<b>Currency</b>	Indicator of sale currency. 3 Char. Ex USD. ISO 4217	String	required
<b>TransactionType</b>	Indicate Transaction Type	Alphanumeric	required
<b>OriginalTransactionID</b>	Require to send if merchant want to make refund	Alphanumeric	optional
<b>Invoice</b>	Invoice order number generated from Sale	Alphanumeric	required
<b>Email</b>	Merchant email, to receive transaction result	Alphanumeric	required
<b>RedirectURL</b>	Merchant url to redirect customer, after transaction completed	Alphanumeric	required
<b>Digest</b>	Digital signature	Alphanumeric	required

## Fields Details

### Original Transaction ID

Field Name	Description
<b>OriginalTransactionID</b>	This ID is the Ecompayment transaction response. If merchant need to perform refund transaction, he can send this ID to Ecompayment system.

### Currency

Field Name	Description
<b>Currency</b>	Indicate which type currency used for transaction. Send as 3 digits numeric value. For example for United State Dollar is 840. Please see the ISO 4217 Table at Appendix.

### Time Stamp

Field Name	Description
<b>TimeStamp</b>	<p>Is the number of milliseconds that have elapsed since January 1, 1970 (midnight UTC/GMT)</p> <p>C#</p> <pre>return (long)(DateTime.UtcNow - Jan1st1970).TotalMilliseconds.ToString();</pre> <p>Java</p> <pre>string getMillSecondsSinceEpoch() {     Calendar cal = Calendar.getInstance(TimeZone.getTimeZone("GMT"));     long now = System.currentTimeMillis();      cal.setTimeInMillis(now);     return Long.toString(cal.getTimeInMillis()); }</pre> <p>PHP</p> <pre>public function getMillSecondsSinceEpoch() {     return (time() * 1000); }</pre>

## Sending transaction

To send your transaction data to our API, simply send all required fields using either HTTP GET or HTTP POST.

With the hosted form method, your user is passed to the Ecompayment gateway where they then enter their card details and receive a response for the transaction, before being re-directed back to your website. Forms collect all the credit card data; not the merchant.

The form-based HTML code shown below is an example of the data that can be submitted to us for an item payment.

### Example order details form with data

```
<form action="https://<DomainName>/gt1/ghghost.aspx" method=POST>
<input type="hidden" name="MerchantID" value="M0000001">
<input type="hidden" name="TimeStamp" value="123456789">
<input type="hidden" name="Amount" value="78.15">
<input type="hidden" name="Currency" value="840">
<input type="hidden" name="TransactionType" value="Sale">
<input type="hidden" name="Invoice" value="56423456">
<input type="hidden" name="Email" value="merchant1@domain.com ">
<input type="hidden" name="RedirectURL" value="somewebsite.com ">
<input type="hidden" name="Digest"
value="9baf9ec644f1b6c6fa801a1e29eec740d3972ec33c743f4aec552fb0d7697ae">
<input type="submit" value="Buy">
</form>
```

## Ecompayment hosted form

## Transaction types

Type of transaction supported by Ecompayment hosted service

Name	Description
Sale	Sale transaction
Refund	Refund transaction

The field will be “&” delimiter.

### Sale Transaction

This is the easiest way to bill an amount over a card. The Sale operation collects immediately the amount desired.

#### Example of sale transaction

```
https://<DomainName>/payform/Ecompaymenth.aspx?MerchantID=M0000001&MerchantToken=22223334444&TimeStamp=123456789&MerchantTransactionID=1234567812345678&Amount=63.12&Currency=USD&TransactionType=Sale&Invoice=1234&Email=merchant1@domain.com&reditectURL=somewebsite.com&Digest=9baf9ec644f1b6c6fa801a1e29eec740d3972ec33c743f4aec552fb0d7697ae
```

## Refund transaction

The Refund operation, as its name states, consists of returning the money already collected by a **Sale** transaction. The amount collected can be refunded in total or partially. You cannot refund amounts bigger than the one sent in the original transaction. Refund can only be performed if a customer has not initiated a chargeback procedure. In this case you must dispute the chargeback according to the standard procedure provided by the Sales.

### Example of refund transaction

```
https://<DomainName>/payform/Ecompayment.aspx?MerchantID=M0000001&MerchantTok  
en=22223334444&TimeStamp=123456789&MerchantTransactionID=1234567812345678&  
Amount=63.12&Currency=USD&TransactionType=Refund&OriginalTransactionID=09898  
9898989&Invoice=1234&Email=merchant1@domain.com&ReditectURL=somewebsite.com&  
Digest=9baf9ec644f1b6c6fa801a1e29eec740d3972ec33c743f4aec552fb0d7697ae
```

## Generate Digest

Ecompayment accepts only requests for which it can be proved that the originator of the request is an authorized subject (i.e. merchant) with whom Ecompayment has signed a contract.

At the moment of signing the contract, the merchant will receive MerchantID together with the MerchantKey. MerchantKey must be used to generate Digest signature.

This is a secret key used to calculate the checksum in each transaction request.

All transactions will contain a checksum; the checksum is calculated by concatenating data from specific fields in the transaction and the checksum is calculated using SHA-256 algorithm.

Digest =SHA256 (timestamp + merchantID + MerchantKey)

### C# Example

```
void example()  
{  
    string merchantId = "00000001";  
    string merchantKey = "59a32e20-1c08-11e4-8c21-0800200c9a66";  
    string millSeconds = getMillSecondsSinceEpoch();  
    string sig = generateSignature(millSeconds, merchantId, merchantKey);  
}  
  
string generateSignature(string millSeconds, string merchantId, string merchantKey)  
{  
    SHA256 lclMD = SHA256Managed.Create();  
    byte[] lclResult = lclMD.ComputeHash(Encoding.ASCII.GetBytes(millSeconds +  
    merchantId + merchantKey));  
    string sig = System.BitConverter.ToString(lclResult).Replace("-", string.Empty);  
}
```

```

        return sig;
    }

static readonly DateTime Jan1st1970 = new DateTime(1970, 1, 1, 0, 0, 0, DateTimeKind.Utc);

static long getMillisecondsSinceEpoch()
{
    return (long)(DateTime.UtcNow - Jan1st1970).TotalMilliseconds.ToString();
}

```

### Java Example

```

void example()
{
    string merchantId = "00000001";
    string merchantKey = "59a32e20-1c08-11e4-8c21-0800200c9a66";
    string millSeconds = getMillisecondsSinceEpoch();
    string sig = generateSignature(millSeconds, merchantId, merchantKey);
}

string generateSignature(string millSeconds, string merchantId, string merchantKey)
{

    MessageDigest lclMD = MessageDigest.getInstance("SHA-256");
    lclMD.update((millSeconds + merchantId + merchantKey).getBytes());
    byte[] lclResult = lclMD.digest();

    sig = new String(Hex.encodeHex(lclResult));
    return sig;
}

string getMillisecondsSinceEpoch()
{
    Calendar cal = Calendar.getInstance(TimeZone.getTimeZone("GMT"));
    long now = System.currentTimeMillis();

    cal.setTimeInMillis(now);
    return Long.toString(cal.getTimeInMillis());
}

```

### PHP Example

```

public function example()
{
    $merchantId = "00000001";
    $merchantKey = "59a32e20-1c08-11e4-8c21-0800200c9a66";

```

```
$millSeconds = getMillSecondsSinceEpoch();
$sig = generateSignature($millSeconds, $merchantId, $merchantKey);
}

public function generateSignature($millSeconds, $merchantId, $merchantKey)
{
    $sig = hash('sha256', $millSeconds, $merchantId, $merchantKey);
    return $sig;
}

public function getMillSecondsSinceEpoch()
{
    return (time() * 1000);
}
```

## Response

Result will be displayed after transaction take place and will allow customer to print the result and redirect to the site, specified in API transaction.

Result will be email to the merchant (to the email specified in transaction) and to the customer.

## Ecompayment Filters

Ecompayment offers an ability to block transactions before they reach an acquiring bank. Merchant can set what particular information he wants to block.

Filter Name	Description
<b>CC Filter</b>	Block any transaction that contains a particular Credit Card Number.
<b>BIN Filter</b>	Block any transaction that contains a particular BIN Number.
<b>Country Filter</b>	Block any transaction that contains any BIN issued in a particular country
<b>Name Filter</b>	Block any transaction that contains particular Last and First Name
<b>IP Filter</b>	Block any transaction that contains a particular IP or IP Range Address
<b>Amount Filter</b>	Block transaction that Amount greater than a particular amount
<b>Velocity Filter</b>	Block transaction for the same credit card that occurs within a configured time limit

### CC Filter

If Merchant decides to block a particular Credit Card Number, filter "Credit Card" needs to be set. Merchant can enter one or many CC numbers that he wants to block.

### BIN Filter

If Merchant decides to block a particular BIN number, filter "BIN Block" needs to be set. Merchant can enter one or many BIN number he wants to block.

### Country Filter

If Merchant wants to block any transaction from a particular country, filter "Country Block" needs to be set. Merchant can enter one or many countries he wants to block. Ecompayment will verify BIN from an incoming transaction against a country BIN database and block the transaction if BIN has been issued by that country.

### **Name Filter**

If Merchant wants to block a transaction that contains a particular Card Holder name, filter "Name Block" needs to be set. Merchant can enter one or many Last and First name combinations he wants to block.

### **IP Filter**

If Merchant wants to block any transaction that comes from a particular IP Address or IP range, filter "IP Block" needs to be set. Merchant can enter one or many IP Addresses he wants to block. Merchant can set a particular IP Address or an IP range.

Filter example:

Merchant sets to block 211.168.0.1

(Merchant can set IP Range as follow: 211.168.0.XXX or 211.168.XXX.XXX or 211.XXX.XXX.XXX)

### **Amount Limit Filter**

If Merchant wants to block any transaction where amount exceeds a certain limit, filter "Amount Block" needs to be set. Merchant enters a maximum amount (limit) that cannot be exceeded.

### **Velocity Filter**

If Merchant wants to block any transaction with the same Credit Card number that occurs before a specified time period runs out, filter "Velocity Block" needs to be used. Merchant can enter limit (1 - 24 hours) he wants to block.

Filter Example:

Merchant sets limit to 1 hour

If transaction occurs at 10am and transaction with the same Credit Card number is sent again at 10:10 am or 10:59 am, it will be blocked.

Administration	Reporting	Filter setting
----------------	-----------	----------------

## FILTER SETTING

Add New Filter

Merchant M0000077 ▾

Filter Type	Filter Value
CC	(e.g. 1111222233334444) 15-17 digits
BIN	
CC	
Country	
Limit	
IP	
Name	
Velocity	

Credit Card (e.g. 1111222233334444) 15-17 digits

Administration	Reporting	Filter setting
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## FILTER SETTING

Add New Filter

Merchant M0000077 ▾

Filter Type	Filter Value	
BIN	445672	Edit 
CC	4216455500000002	Edit 
Country	Anguilla	Edit 
Name		Add

First name and Last name (e.g. James Bond)

## Appendix ISO 4217

The following is a list of active codes of official ISO 4217 currency names.  
 Unified System for Regional Compensation

ENTITY	Currency	Alphabetic Code	Numeric Code	Minor unit
AFGHANISTAN	Afghani	AFN	971	2
ÅLAND ISLANDS	Euro	EUR	978	2
ALBANIA	Lek	ALL	008	2
ALGERIA	Algerian Dinar	DZD	012	2
AMERICAN SAMOA	US Dollar	USD	840	2
ANDORRA	Euro	EUR	978	2
ANGOLA	Kwanza	AOA	973	2
ANGUILLA	East Caribbean Dollar	XCD	951	2
ANTARCTICA	No universal currency			
ANTIGUA AND BARBUDA	East Caribbean Dollar	XCD	951	2
ARGENTINA	Argentine Peso	ARS	032	2
ARMENIA	Armenian Dram	AMD	051	2
ARUBA	Aruban Florin	AWG	533	2
AUSTRALIA	Australian Dollar	AUD	036	2
AUSTRIA	Euro	EUR	978	2
AZERBAIJAN	Azerbaijanian Manat	AZN	944	2
BAHAMAS	Bahamian Dollar	BSD	044	2
BAHRAIN	Bahraini Dinar	BHD	048	3
BANGLADESH	Taka	BDT	050	2
BARBADOS	Barbados Dollar	BBD	052	2
BELARUS	Belarussian Ruble	BYR	974	0
BELGIUM	Euro	EUR	978	2
BELIZE	Belize Dollar	BZD	084	2
BENIN	CFA Franc BCEAO	XOF	952	0
BERMUDA	Bermudian Dollar	BMD	060	2
BHUTAN	Ngultrum	BTN	064	2
BHUTAN	Indian Rupee	INR	356	2
BOLIVIA, PLURINATIONAL STATE OF	Boliviano	BOB	068	2
BOLIVIA, PLURINATIONAL STATE OF	Mvdol	BOV	984	2
BONAIRE, SINT EUSTATIUS AND SABA	US Dollar	USD	840	2
BOSNIA AND HERZEGOVINA	Convertible Mark	BAM	977	2
BOTSWANA	Pula	BWP	072	2

BOUVET ISLAND	Norwegian Krone	NOK	578	2
BRAZIL	Brazilian Real	BRL	986	2
BRITISH INDIAN OCEAN TERRITORY	US Dollar	USD	840	2
BRUNEI DARUSSALAM	Brunei Dollar	BND	096	2
BULGARIA	Bulgarian Lev	BGN	975	2
BURKINA FASO	CFA Franc BCEAO	XOF	952	0
BURUNDI	Burundi Franc	BIF	108	0
CAMBODIA	Riel	KHR	116	2
CAMEROON	CFA Franc BEAC	XAF	950	0
CANADA	Canadian Dollar	CAD	124	2
CAPE VERDE	Cape Verde Escudo	CVE	132	2
CAYMAN ISLANDS	Cayman Islands Dollar	KYD	136	2
CENTRAL AFRICAN REPUBLIC	CFA Franc BEAC	XAF	950	0
CHAD	CFA Franc BEAC	XAF	950	0
CHILE	Unidad de Fomento	CLF	990	4
CHILE	Chilean Peso	CLP	152	0
CHINA	Yuan Renminbi	CNY	156	2
CHRISTMAS ISLAND	Australian Dollar	AUD	036	2
COCOS (KEELING) ISLANDS	Australian Dollar	AUD	036	2
COLOMBIA	Colombian Peso	COP	170	2
COLOMBIA	Unidad de Valor Real	COU	970	2
COMOROS	Comoro Franc	KMF	174	0
CONGO	CFA Franc BEAC	XAF	950	0
CONGO, DEMOCRATIC REPUBLIC OF THE	Congolese Franc	CDF	976	2
COOK ISLANDS	New Zealand Dollar	NZD	554	2
COSTA RICA	Costa Rican Colon	CRC	188	2
CÔTE D'IVOIRE	CFA Franc BCEAO	XOF	952	0
CROATIA	Croatian Kuna	HRK	191	2
CUBA	Peso Convertible	CUC	931	2
CUBA	Cuban Peso	CUP	192	2
CURAÇAO	Netherlands Antillean Guilder	ANG	532	2
CYPRUS	Euro	EUR	978	2
CZECH REPUBLIC	Czech Koruna	CZK	203	2
DENMARK	Danish Krone	DKK	208	2
DJIBOUTI	Djibouti Franc	DJF	262	0
DOMINICA	East Caribbean Dollar	XCD	951	2
DOMINICAN REPUBLIC	Dominican Peso	DOP	214	2
ECUADOR	US Dollar	USD	840	2
EGYPT	Egyptian Pound	EGP	818	2
EL SALVADOR	El Salvador Colon	SVC	222	2
EL SALVADOR	US Dollar	USD	840	2
EQUATORIAL GUINEA	CFA Franc BEAC	XAF	950	0
ERITREA	Nakfa	ERN	232	2

ESTONIA	Euro	EUR	978	2
ETHIOPIA	Ethiopian Birr	ETB	230	2
EUROPEAN UNION	Euro	EUR	978	2
FALKLAND ISLANDS (MALVINAS)	Falkland Islands Pound	FKP	238	2
FAROE ISLANDS	Danish Krone	DKK	208	2
FIJI	Fiji Dollar	FJD	242	2
FINLAND	Euro	EUR	978	2
FRANCE	Euro	EUR	978	2
FRENCH GUIANA	Euro	EUR	978	2
FRENCH POLYNESIA	CFP Franc	XPF	953	0
FRENCH SOUTHERN TERRITORIES	Euro	EUR	978	2
GABON	CFA Franc BEAC	XAF	950	0
GAMBIA	Dalasi	GMD	270	2
GEORGIA	Lari	GEL	981	2
GERMANY	Euro	EUR	978	2
GHANA	Ghana Cedi	GHS	936	2
GIBRALTAR	Gibraltar Pound	GIP	292	2
GREECE	Euro	EUR	978	2
GREENLAND	Danish Krone	DKK	208	2
GRENADA	East Caribbean Dollar	XCD	951	2
GUADELOUPE	Euro	EUR	978	2
GUAM	US Dollar	USD	840	2
GUATEMALA	Quetzal	GTQ	320	2
GUERNSEY	Pound Sterling	GBP	826	2
GUINEA	Guinea Franc	GNF	324	0
GUINEA-BISSAU	CFA Franc BCEAO	XOF	952	0
GUYANA	Guyana Dollar	GYD	328	2
HAITI	Gourde	HTG	332	2
HAITI	US Dollar	USD	840	2
HEARD ISLAND AND McDonald ISLANDS	Australian Dollar	AUD	036	2
HOLY SEE (VATICAN CITY STATE)	Euro	EUR	978	2
HONDURAS	Lempira	HNL	340	2
HONG KONG	Hong Kong Dollar	HKD	344	2
HUNGARY	Forint	HUF	348	2
ICELAND	Iceland Krona	ISK	352	0
INDIA	Indian Rupee	INR	356	2
INDONESIA	Rupiah	IDR	360	2
INTERNATIONAL MONETARY FUND (IMF)	SDR (Special Drawing Right)	XDR	960	N.A.
IRAN, ISLAMIC REPUBLIC OF	Iranian Rial	IRR	364	2
IRAQ	Iraqi Dinar	IQD	368	3
IRELAND	Euro	EUR	978	2
ISLE OF MAN	Pound Sterling	GBP	826	2

ISRAEL	New Israeli Sheqel	ILS	376	2
ITALY	Euro	EUR	978	2
JAMAICA	Jamaican Dollar	JMD	388	2
JAPAN	Yen	JPY	392	0
JERSEY	Pound Sterling	GBP	826	2
JORDAN	Jordanian Dinar	JOD	400	3
KAZAKHSTAN	Tenge	KZT	398	2
KENYA	Kenyan Shilling	KES	404	2
KIRIBATI	Australian Dollar	AUD	036	2
KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF	North Korean Won	KPW	408	2
KOREA, REPUBLIC OF	Won	KRW	410	0
KUWAIT	Kuwaiti Dinar	KWD	414	3
KYRGYZSTAN	Som	KGS	417	2
LAO PEOPLE'S DEMOCRATIC REPUBLIC	Kip	LAK	418	2
LATVIA	Euro	EUR	978	2
LEBANON	Lebanese Pound	LBP	422	2
LESOTHO	Loti	LSL	426	2
LESOTHO	Rand	ZAR	710	2
LIBERIA	Liberian Dollar	LRD	430	2
LIBYA	Libyan Dinar	LYD	434	3
LIECHTENSTEIN	Swiss Franc	CHF	756	2
LITHUANIA	Lithuanian Litas	LTL	440	2
LUXEMBOURG	Euro	EUR	978	2
MACAO	Pataca	MOP	446	2
MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF	Denar	MKD	807	2
MADAGASCAR	Malagasy Ariary	MGA	969	2
MALAWI	Kwacha	MWK	454	2
MALAYSIA	Malaysian Ringgit	MYR	458	2
MALDIVES	Rufiyaa	MVR	462	2
MALI	CFA Franc BCEAO	XOF	952	0
MALTA	Euro	EUR	978	2
MARSHALL ISLANDS	US Dollar	USD	840	2
MARTINIQUE	Euro	EUR	978	2
MAURITANIA	Ouguiya	MRO	478	2
MAURITIUS	Mauritius Rupee	MUR	480	2
MAYOTTE	Euro	EUR	978	2
MEMBER COUNTRIES OF THE AFRICAN DEVELOPMENT BANK GROUP	ADB Unit of Account	XUA	965	N.A.
MEXICO	Mexican Peso	MXN	484	2
MEXICO	Mexican Unidad de Inversion (UDI)	MXV	979	2

MICRONESIA, FEDERATED STATES OF	US Dollar	USD	840	2
MOLDOVA, REPUBLIC OF	Moldovan Leu	MDL	498	2
MONACO	Euro	EUR	978	2
MONGOLIA	Tugrik	MNT	496	2
MONTENEGRO	Euro	EUR	978	2
MONTSERRAT	East Caribbean Dollar	XCD	951	2
MOROCCO	Moroccan Dirham	MAD	504	2
MOZAMBIQUE	Mozambique Metical	MZN	943	2
MYANMAR	Kyat	MMK	104	2
NAMIBIA	Namibia Dollar	NAD	516	2
NAMIBIA	Rand	ZAR	710	2
NAURU	Australian Dollar	AUD	036	2
NEPAL	Nepalese Rupee	NPR	524	2
NETHERLANDS	Euro	EUR	978	2
NEW CALEDONIA	CFP Franc	XPF	953	0
NEW ZEALAND	New Zealand Dollar	NZD	554	2
NICARAGUA	Cordoba Oro	NIO	558	2
NIGER	CFA Franc BCEAO	XOF	952	0
NIGERIA	Naira	NGN	566	2
NIUE	New Zealand Dollar	NZD	554	2
NORFOLK ISLAND	Australian Dollar	AUD	036	2
NORTHERN MARIANA ISLANDS	US Dollar	USD	840	2
NORWAY	Norwegian Krone	NOK	578	2
OMAN	Rial Omani	OMR	512	3
PAKISTAN	Pakistan Rupee	PKR	586	2
PALAU	US Dollar	USD	840	2
PALESTINE, STATE OF	No universal currency			
PANAMA	Balboa	PAB	590	2
PANAMA	US Dollar	USD	840	2
PAPUA NEW GUINEA	Kina	PGK	598	2
PARAGUAY	Guarani	PYG	600	0
PERU	Nuevo Sol	PEN	604	2
PHILIPPINES	Philippine Peso	PHP	608	2
PITCAIRN	New Zealand Dollar	NZD	554	2
POLAND	Zloty	PLN	985	2
PORTUGAL	Euro	EUR	978	2
PUERTO RICO	US Dollar	USD	840	2
QATAR	Qatari Rial	QAR	634	2
RÉUNION	Euro	EUR	978	2
ROMANIA	New Romanian Leu	RON	946	2
RUSSIAN FEDERATION	Russian Ruble	RUB	643	2
RWANDA	Rwanda Franc	RWF	646	0
SAINT BARTHÉLEMY	Euro	EUR	978	2
SAINT HELENA, ASCENSION AND TRISTAN DA CUNHA	Saint Helena Pound	SHP	654	2

SAINT KITTS AND NEVIS	East Caribbean Dollar	XCD	951	2
SAINT LUCIA	East Caribbean Dollar	XCD	951	2
SAINT MARTIN (FRENCH PART)	Euro	EUR	978	2
SAINT PIERRE AND MIQUELON	Euro	EUR	978	2
SAINT VINCENT AND THE GRENADINES	East Caribbean Dollar	XCD	951	2
SAMOA	Tala	WST	882	2
SAN MARINO	Euro	EUR	978	2
SAO TOME AND PRINCIPE	Dobra	STD	678	2
SAUDI ARABIA	Saudi Riyal	SAR	682	2
SENEGAL	CFA Franc BCEAO	XOF	952	0
SERBIA	Serbian Dinar	RSD	941	2
SEYCHELLES	Seychelles Rupee	SCR	690	2
SIERRA LEONE	Leone	SLL	694	2
SINGAPORE	Singapore Dollar	SGD	702	2
SINT MAARTEN (DUTCH PART)	Netherlands Antillean Guilder	ANG	532	2
SISTEMA UNITARIO DE COMPENSACION REGIONAL DE PAGOS "SUCRE"	Sucre	XSU	994	N.A.
SLOVAKIA	Euro	EUR	978	2
SLOVENIA	Euro	EUR	978	2
SOLOMON ISLANDS	Solomon Islands Dollar	SBD	090	2
SOMALIA	Somali Shilling	SOS	706	2
SOUTH AFRICA	Rand	ZAR	710	2
SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS	No universal currency			
SOUTH SUDAN	South Sudanese Pound	SSP	728	2
SPAIN	Euro	EUR	978	2
SRI LANKA	Sri Lanka Rupee	LKR	144	2
SUDAN	Sudanese Pound	SDG	938	2
SURINAME	Surinam Dollar	SRD	968	2
SVALBARD AND JAN MAYEN	Norwegian Krone	NOK	578	2
SWAZILAND	Lilangeni	SZL	748	2
SWEDEN	Swedish Krona	SEK	752	2
SWITZERLAND	WIR Euro	CHE	947	2
SWITZERLAND	Swiss Franc	CHF	756	2
SWITZERLAND	WIR Franc	CHW	948	2
SYRIAN ARAB REPUBLIC	Syrian Pound	SYP	760	2
TAIWAN, PROVINCE OF CHINA	New Taiwan Dollar	TWD	901	2
TAJIKISTAN	Somoni	TJS	972	2
TANZANIA, UNITED REPUBLIC OF	Tanzanian Shilling	TZS	834	2
THAILAND	Baht	THB	764	2
TIMOR-LESTE	US Dollar	USD	840	2
TOGO	CFA Franc BCEAO	XOF	952	0

TOKELAU	New Zealand Dollar	NZD	554	2
TONGA	Pa'anga	TOP	776	2
TRINIDAD AND TOBAGO	Trinidad and Tobago Dollar	TTD	780	2
TUNISIA	Tunisian Dinar	TND	788	3
TURKEY	Turkish Lira	TRY	949	2
TURKMENISTAN	Turkmenistan New Manat	TMT	934	2
TURKS AND CAICOS ISLANDS	US Dollar	USD	840	2
TUVALU	Australian Dollar	AUD	036	2
UGANDA	Uganda Shilling	UGX	800	0
UKRAINE	Hryvnia	UAH	980	2
UNITED ARAB EMIRATES	UAE Dirham	AED	784	2
UNITED KINGDOM	Pound Sterling	GBP	826	2
UNITED STATES	US Dollar	USD	840	2
UNITED STATES	US Dollar (Next day)	USN	997	2
UNITED STATES MINOR OUTLYING ISLANDS	US Dollar	USD	840	2
URUGUAY	Uruguay Peso en Unidades Indexadas (URUIURUI)	UYI	940	0
URUGUAY	Peso Uruguayo	UYU	858	2
UZBEKISTAN	Uzbekistan Sum	UZS	860	2
VANUATU	Vatu	VUV	548	0
VENEZUELA, BOLIVARIAN REPUBLIC OF	Bolivar	VEF	937	2
VIET NAM	Dong	VND	704	0
VIRGIN ISLANDS (BRITISH)	US Dollar	USD	840	2
VIRGIN ISLANDS (U.S.)	US Dollar	USD	840	2
WALLIS AND FUTUNA	CFP Franc	XPF	953	0
WESTERN SAHARA	Moroccan Dirham	MAD	504	2
YEMEN	Yemeni Rial	YER	886	2
ZAMBIA	Zambian Kwacha	ZMW	967	2
ZIMBABWE	Zimbabwe Dollar	ZWL	932	2

## Appendix ISO 3166

ISO 3166 Country code

Cod e	English Name	French Name
AD	Andorra	Andorre
AE	United Arab Emirates	Émirats arabes unis
AF	Afghanistan	Afghanistan
AG	Antigua and Barbuda	Antigua-et-Barbuda
AI	Anguilla	Anguilla

AL	Albania	Albanie
AM	Armenia	Arménie
AO	Angola	Angola
AQ	Antarctica	Antarctique
AR	Argentina	Argentine
AS	American Samoa	Samoa américaine
AT	Austria	Autriche
AU	Australia	Australie
AW	Aruba	Aruba
AX	Åland Islands	Îles d'Åland
AZ	Azerbaijan	Azerbaïdjan
BA	Bosnia and Herzegovina	Bosnie-Herzégovine
BB	Barbados	Barbade
BD	Bangladesh	Bangladesh
BE	Belgium	Belgique
BF	Burkina Faso	Burkina Faso
BG	Bulgaria	Bulgarie
BH	Bahrain	Bahreïn
BI	Burundi	Burundi
BJ	Benin	Bénin
BL	Saint Barthélemy	Saint-Barthélemy
BM	Bermuda	Bermudes
BN	Brunei Darussalam	Brunei Darussalam
BO	Bolivia	Bolivie
BQ	Caribbean Netherlands	Pays-Bas caribéens
BR	Brazil	Brésil
BS	Bahamas	Bahamas
BT	Bhutan	Bhoutan
BV	Bouvet Island	Île Bouvet
BW	Botswana	Botswana
BY	Belarus	Bélarus
BZ	Belize	Belize
CA	Canada	Canada
CC	Cocos (Keeling) Islands	Îles Cocos (Keeling)
CD	Congo, Democratic Republic of	Congo, République démocratique du
CF	Central African Republic	République centrafricaine
CG	Congo	Congo
CH	Switzerland	Suisse
CI	Côte d'Ivoire	Côte d'Ivoire
CK	Cook Islands	Îles Cook
CL	Chile	Chili
CM	Cameroon	Cameroun
CN	China	Chine
CO	Colombia	Colombie
CR	Costa Rica	Costa Rica
CU	Cuba	Cuba

CV	Cape Verde	Cap-Vert
CW	Curaçao	Curaçao
CX	Christmas Island	Île Christmas
CY	Cyprus	Chypre
CZ	Czech Republic	République tchèque
DE	Germany	Allemagne
DJ	Djibouti	Djibouti
DK	Denmark	Danemark
DM	Dominica	Dominique
DO	Dominican Republic	République dominicaine
DZ	Algeria	Algérie
EC	Ecuador	Équateur
EE	Estonia	Estonie
EG	Egypt	Égypte
EH	Western Sahara	Sahara Occidental
ER	Eritrea	Érythrée
ES	Spain	Espagne
ET	Ethiopia	Éthiopie
FI	Finland	Finlande
FJ	Fiji	Fidji
FK	Falkland Islands	Îles Malouines
FM	Micronesia, Federated States of	Micronésie, États fédérés de
FO	Faroe Islands	Îles Féroé
FR	France	France
GA	Gabon	Gabon
GB	United Kingdom	Royaume-Uni
GD	Grenada	Grenade
GE	Georgia	Géorgie
GF	French Guiana	Guyane française
GG	Guernsey	Guernesey
GH	Ghana	Ghana
GI	Gibraltar	Gibraltar
GL	Greenland	Groenland
GM	Gambia	Gambie
GN	Guinea	Guinée
GP	Guadeloupe	Guadeloupe
GQ	Equatorial Guinea	Guinée équatoriale
GR	Greece	Grèce
GS	South Georgia and the South Sandwich Islands	Géorgie du Sud et les îles Sandwich du Sud
GT	Guatemala	Guatemala
GU	Guam	Guam
GW	Guinea-Bissau	Guinée-Bissau
GY	Guyana	Guyana
HK	Hong Kong	Hong Kong
HM	Heard and McDonald Islands	Îles Heard et McDonald

HN	Honduras	Honduras
HR	Croatia	Croatie
HT	Haiti	Haïti
HU	Hungary	Hongrie
ID	Indonesia	Indonésie
IE	Ireland	Irlande
IL	Israel	Israël
IM	Isle of Man	Île de Man
IN	India	Inde
IO	British Indian Ocean Territory	Territoire britannique de l'océan Indien
IQ	Iraq	Irak
IR	Iran	Iran
IS	Iceland	Islande
IT	Italy	Italie
JE	Jersey	Jersey
JM	Jamaica	Jamaïque
JO	Jordan	Jordanie
JP	Japan	Japon
KE	Kenya	Kenya
KG	Kyrgyzstan	Kirghizistan
KH	Cambodia	Cambodge
KI	Kiribati	Kiribati
KM	Comoros	Comores
KN	Saint Kitts and Nevis	Saint-Kitts-et-Nevis
KP	North Korea	Corée du Nord
KR	South Korea	Corée du Sud
KW	Kuwait	Koweït
KY	Cayman Islands	Îles Caïmans
KZ	Kazakhstan	Kazakhstan
LA	Lao People's Democratic Republic	Laos
LB	Lebanon	Liban
LC	Saint Lucia	Sainte-Lucie
LI	Liechtenstein	Liechtenstein
LK	Sri Lanka	Sri Lanka
LR	Liberia	Libéria
LS	Lesotho	Lesotho
LT	Lithuania	Lituanie
LU	Luxembourg	Luxembourg
LV	Latvia	Lettonie
LY	Libya	Libye
MA	Morocco	Maroc
MC	Monaco	Monaco
MD	Moldova	Moldavie
ME	Montenegro	Monténégro
MF	Saint-Martin (France)	Saint-Martin (France)
MG	Madagascar	Madagascar

MH	Marshall Islands	Îles Marshall
MK	Macedonia	Macédoine
ML	Mali	Mali
MM	Myanmar	Myanmar
MN	Mongolia	Mongolie
MO	Macau	Macao
MP	Northern Mariana Islands	Mariannes du Nord
MQ	Martinique	Martinique
MR	Mauritania	Mauritanie
MS	Montserrat	Montserrat
MT	Malta	Malte
MU	Mauritius	Maurice
MV	Maldives	Maldives
MW	Malawi	Malawi
MX	Mexico	Mexique
MY	Malaysia	Malaisie
MZ	Mozambique	Mozambique
NA	Namibia	Namibie
NC	New Caledonia	Nouvelle-Calédonie
NE	Niger	Niger
NF	Norfolk Island	Île Norfolk
NG	Nigeria	Nigeria
NI	Nicaragua	Nicaragua
NL	The Netherlands	Pays-Bas
NO	Norway	Norvège
NP	Nepal	Népal
NR	Nauru	Nauru
NU	Niue	Niue
NZ	New Zealand	Nouvelle-Zélande
OM	Oman	Oman
PA	Panama	Panama
PE	Peru	Pérou
PF	French Polynesia	Polynésie française
PG	Papua New Guinea	Papouasie-Nouvelle-Guinée
PH	Philippines	Philippines
PK	Pakistan	Pakistan
PL	Poland	Pologne
PM	St. Pierre and Miquelon	Saint-Pierre-et-Miquelon
PN	Pitcairn	Pitcairn
PR	Puerto Rico	Puerto Rico
PS	Palestine, State of	Palestine
PT	Portugal	Portugal
PW	Palau	Palau
PY	Paraguay	Paraguay
QA	Qatar	Qatar
RE	Réunion	Réunion

RO	Romania	Roumanie
RS	Serbia	Serbie
RU	Russian Federation	Russie
RW	Rwanda	Rwanda
SA	Saudi Arabia	Arabie saoudite
SB	Solomon Islands	Îles Salomon
SC	Seychelles	Seychelles
SD	Sudan	Soudan
SE	Sweden	Suède
SG	Singapore	Singapour
SH	Saint Helena	Sainte-Hélène
SI	Slovenia	Slovénie
SJ	Svalbard and Jan Mayen Islands	Svalbard et île de Jan Mayen
SK	Slovakia	Slovaquie
SL	Sierra Leone	Sierra Leone
SM	San Marino	Saint-Marin
SN	Senegal	Sénégal
SO	Somalia	Somalie
SR	Suriname	Suriname
SS	South Sudan	Soudan du Sud
ST	Sao Tome and Principe	Sao Tomé-et-Principe
SV	El Salvador	El Salvador
SX	Sint Maarten (Dutch part)	Saint-Martin (Pays-Bas)
SY	Syria	Syrie
SZ	Swaziland	Swaziland
TC	Turks and Caicos Islands	Îles Turks et Caicos
TD	Chad	Tchad
TF	French Southern Territories	Terres australes françaises
TG	Togo	Togo
TH	Thailand	Thaïlande
TJ	Tajikistan	Tadjikistan
TK	Tokelau	Tokelau
TL	Timor-Leste	Timor-Leste
TM	Turkmenistan	Turkménistan
TN	Tunisia	Tunisie
TO	Tonga	Tonga
TR	Turkey	Turquie
TT	Trinidad and Tobago	Trinité-et-Tobago
TV	Tuvalu	Tuvalu
TW	Taiwan	Taiwan
TZ	Tanzania	Tanzanie
UA	Ukraine	Ukraine
UG	Uganda	Ouganda
UM	United States Minor Outlying Islands	Îles mineures éloignées des États-Unis
US	United States	États-Unis
UY	Uruguay	Uruguay

UZ	Uzbekistan	Ouzbékistan
VA	Vatican	Vatican
VC	Saint Vincent and the Grenadines	Saint-Vincent-et-les-Grenadines
VE	Venezuela	Venezuela
VG	Virgin Islands (British)	Îles Vierges britanniques
VI	Virgin Islands (U.S.)	Îles Vierges américaines
VN	Vietnam	Vietnam
VU	Vanuatu	Vanuatu
WF	Wallis and Futuna Islands	Îles Wallis-et-Futuna
WS	Samoa	Samoa
YE	Yemen	Yémen
YT	Mayotte	Mayotte
ZA	South Africa	Afrique du Sud
ZM	Zambia	Zambie
ZW	Zimbabwe	Zimbabwe