

# BUFFALO API

## Catalogue

<b>BUFFALO API</b> .....	<b>1</b>
<b>1.TRACKING INFORMATION</b> .....	<b>3</b>
1.1 URL .....	3
1.2 Method: get/post .....	3
1.3 Field .....	3
1.4 Response result .....	3
<b>2.CREATE WAYBILL FOR DOMESTIC DELIVERY</b> .....	<b>3</b>
2.2 Method: post .....	3
2.3 Field .....	4
2.4 Box detail Field .....	4
2.5 Success response result .....	5
2.6 Multiple requests response results .....	5
2.7 Create order example .....	5
<b>3. POSTCODE/SUBURB LIBRARY QUERY</b> .....	<b>8</b>
3.1 URL .....	8
3.2 Method: get .....	8
3.3 Field .....	9
3.4 Response .....	9
<b>4. Inbound Interface</b> .....	<b>9</b>
4.1 URL .....	9
4.2 Method: get .....	9

4.3 Field .....	9
4.4 Boxdetail Field .....	9
4.5 Response result .....	10
<b>5. GET LABEL .....</b>	<b>10</b>
5.1 URL .....	10
5.2 Method: get .....	10
<b>6. ESTIMATED FREIGHT .....</b>	<b>10</b>
6.1 URL .....	10
6.2 Method: post .....	10
6.3 Field .....	10
6.4 Boxdetail Field .....	11
6.5 Estimated Freight Example .....	11
6.5 Request successful response .....	12
<b>7. CANCEL ORDER .....</b>	<b>12</b>
7.1 URL .....	12
7.2 Method: get/post .....	13
7.3 Field .....	13
7.4 Response result .....	13

# 1.Tracking Information

## 1.1 URL

<http://customer.buffaloex.co.za/express/getrecord>

## 1.2 Method: get/post

## 1.3 Field

Field Name	Field Type	Field Description	Example
number	String	Waybill no.,or third-party waybill no., Multiple fields can be separated by ","	number=123456

## 1.4 Response result

```
{
  "status":"00000", //status
  "message":"Success", //status description
  "data":{
    "record":{
      "content":"Order placed successfully",//tracking description
      "images":""," //image url,
      "status":"4", status node
      "displaytime":"2017-08-09 09:43:03(GMT+8)"//tracking time
    },
    "receivcity":"JHB",//destination
    "expressnumber":"799247852274912"//waybill no.
  }
}
```

# 2.Create waybill for domestic delivery

## 2.1 URL

<http://customer.buffaloex.co.za/api/order/orderCreate>

## 2.2 Method: post

Data Format:Jason

## 2.3 Field

Field Name	Field type	Description	Example
appld	String(Required)	Customer unique identification code from buffalo	
sign	String(Required)	Signature	
receiver	String(Required)	Receiver	
receivetelephone	String(Required)	Receiver telephone	
receivepostcode	String(Required)	Receiver postcode	
receivecompany	String	Receiver Company	
receiveemail	String	Receiver Email	
receivesuburb	String(Required)	Receiver suburb	
packages	String	Package qty	
receiveaddress	String(Required,Up to 50 characters)	Receiver Address	
receiveaddress2	String(Up to 50 characters)	Receiver Address2	
sender	String(Required)	Sender Name	
sendtelephone	String(Required)	Sender Tel	
senderpostcode	String(Required)	Sender Postcode	
sendcompanyen	String	Sender Company	
senderemail	String	Sender Email	
sendersuburb	String(Required)	Sender suburb	
sendaddress	String(Required,Up to 50 characters)	Sender address	
thirdnumber	String(Required)	Third-party waybill no.	
storehouseid	Long(The type of client collect is Required)	The warehouse of client collect	
deliverytype	Integer(Not required)	Client collect or not: 0: dispatch, 1: client collect, Default to dispatch	
boxdetails	[boxdetail]	box details	

## 2.4 Box detail Field

Field Name	Field Type	Description	Example
weight	double	box weight	
estimatelength	int	box length	
estimatewidth	int	box width	

<code>estimateheight</code>	<code>int</code>	<code>box height</code>	
-----------------------------	------------------	-------------------------	--

## 2.5 Success response result

```
{
  "status": "00000",
  "message": "",
  "data": {
    "expressnumber": "152898423017019",
    "supplier": "Buffalo"
  }
}
```

## 2.6 Multiple requests response results

```
{
  "status": "500",
  "message": "Field exception",
  "data": {
    "thirdnumber": "12312312312312",
    "importfailmsg": "The customer order number already exists in our system, please use another customer order number",
    "expressnumber": "152898423017019"
  }
}
```

## 2.7 Create order example

```
public static void main(String[] args) {

    Map<String, Object> data = new HashMap<>();
    data.put("receiver", "Margi Gibbison");
    data.put("receivetelephone", "27824668286");
    data.put("receivesuburb", "BEREA PARK");
    data.put("receivepostcode", "0002");
    data.put("receiveemail", "raymag@lantic.net");
    data.put("receiveaddress", "51 Nicklaus Str Silver Lakes");
    data.put("receiveaddress2", "");
    data.put("receivecompany", "");
    data.put("thirdnumber", "test123");

    List<Map<String, Object>> detaillist = new ArrayList<>();
    Map<String, Object> detail = new HashMap<>();
    detail.put("weight", 3.11);
    detail.put("estimateheight", 5);
    detail.put("estimatelength", 40);
    detail.put("estimatewidth", 30);
    detaillist.add(detail);
}
```

```
data.put("boxdetails", detaillist);
```

```
data.put("sender", "Jiang Yuanfei");  
data.put("sendtelephone", "+86 025 86707811");  
data.put("senderpostcode", "1619");  
data.put("senderemail", "");  
data.put("sendersuburb", "Spartan");  
data.put("sendaddress", "Airport");  
data.put("timezone", "-2");
```

```
Map<String, Object> paramscontent = new HashMap<>();  
for (Map.Entry<String, Object> entry : data.entrySet()) {  
    Object value = entry.getValue();  
    if("boxdetails".equals(entry.getKey()))  
        {paramscontent.put(URLDeentry.getKey(), JsonUtils.toJson(value));  
    }else {  
        paramscontent.put(entry.getKey(), value);  
    }  
}  
  
String appid = "you appid";  
String primarykey = "you primarykey";  
paramscontent.put("appid", appid);  
String content = SignUtils.getSignContent(paramscontent);  
String sign = SignUtils.getSign(content, primarykey, Const.ENCODE_TYPE);
```

```
Map<String, Object> header = new HashMap<String, Object>();  
header.put("sign", sign);  
header.put("appid", appid);  
String result = HttpUtil.doPost4Json4Http(url, JsonUtils.toJson(data), header);
```

```
System.out.println(result);  
}
```

```
public static String getSignContent(Map<String, Object> params) {
```

```
    params.remove("sign");
```

```
    TreeSet<String> sortSet = new TreeSet<>();  
    sortSet.addAll(params.keySet());  
    StringBuffer sb = new StringBuffer();
```

```
    Iterator<String> it = sortSet.iterator();
```

```

while(it.hasNext()) {
String name = it.next();
if(params.get(name) == null) {
continue;
}

String value = params.get(name).toString();
if(StringUtils.isEmpty(value)) {
continue;
}
sb.append(name+"="+value);
}
return sb.toString();
}

public static String doPost4Json4Http(String url, String json, Map<String, Object> header) {
HttpClient client = new HttpClient();
PostMethod postMethod = new PostMethod(url);
if (header != null) {
for (Map.Entry<String, Object> entry : header.entrySet()) {
postMethod.setRequestHeader(entry.getKey(), entry.setValue(entry.getKey()).toString());
}
}
String response = null;
try {
if (StringUtil.isNotEmpty(json)) {
postMethod.setRequestEntity(new StringRequestEntity(json, "application/json", "UTF-8"));
}
client.executeMethod(postMethod);
if (postMethod.getStatusCode() == HttpStatus.SC_OK) {
response = postMethod.getResponseBodyAsString();
} else {
response = postMethod.getResponseBodyAsString();
}
} catch (Exception e) {
e.printStackTrace();
} finally {
postMethod.releaseConnection();
}
return response;
}

```

signature algorithm

```

public static String getSign(String content,String privatekey,String charset) {
PrivateKey priKey = getPrivateKeyFromPKCS8("RSA",

```

```

        new ByteArrayInputStream(privatekey.getBytes());

        java.security.Signature signature =
java.security.Signature.getInstance("SHA1WithRSA");

        signature.initSign(priKey);

        if (StringUtils.isEmpty(charset)) {
            signature.update(content.getBytes());
        } else {
            signature.update(content.getBytes(charset));
        }

        byte[] signed = signature.sign();

        return new String(Base64.encodeBase64(signed));
    }
}

private static PrivateKey getPrivateKeyFromPKCS8(String signtype,InputStream ins) throws
Exception {
    if (ins == null || StringUtils.isEmpty(signtype)) {
        return null;
    }

    KeyFactory keyFactory = KeyFactory.getInstance(signtype);

    byte[] encodedKey = StreamUtil.readText(ins).getBytes();

    encodedKey = Base64.decodeBase64(encodedKey);

    return keyFactory.generatePrivate(new PKCS8EncodedKeySpec(encodedKey));
}

```

### 3. postcode/suburb library query

#### 3.1 URL

<http://customer.buffaloex.co.za/express/searchaddress?postcode=0001&suburb=aaa>

#### 3.2 Method: get



### 3.3 Field

Field Name	Field Type	Description	Example
postcode	String	Postcode(One of Postcode and Surburb is required)	postcode = 0001
suburb	String	Suburb ( One of Postcode and Surburb is required )	suburb=Arcadia

### 3.4 Response

```
{  
  "status":"00000", //The status of 00000 represents success, while others represent failure  
  "message":"success", //status description  
  "data":{  
    "postcode":"0001",  
    "suburb":"Arcadia",  
  },{  
    "postcode":"0001",  
    "suburb":"Arcadia",  
  }], response data  
}
```

## 4. Inbound Interface

### 4.1 URL

<http://customer.buffaloex.co.za/api/order/intosite>

### 4.2 Method: get

### 4.3 Field

Field Name	Field Type	Description	Example
expressnumber	String	Waybill No. responded from Buffalo's order	
boxdetails	List	box details [boxdetail]	

### 4.4 Boxdetail Field

Field Name	Field Type	Description	Example
weight	double	box weight	

<a href="#">estimatelength</a>	int	box length	
<a href="#">estimatewidth</a>	int	box width	
<a href="#">estimateheight</a>	int	box height	

#### 4.5 Response result

```
{
  "status": "00000", //The status of 00000 represents success, while others represent failure
  "message": "s", //status description
  "data": "Enter site success" //response data
}
```

## 5. Get label

#### 5.1 URL

<http://customer.buffaloex.co.za/express/importprint?ordernos=运单号>

#### 5.2 Method: get

## 6. Estimated Freight

#### 6.1 URL

<http://customer.buffaloex.co.za/api/order/estimatecost>

#### 6.2 Method: post

Data Format: Jason

#### 6.3 Field

Field Name	Field Type	Description	Example
appld	String(Required)	Customer unique identification code from buffalo	
sign	String(Required)	Signature	
receivepostcode	String(Required)	Receiver postcode	
receivesuburb	String(Required)	Receiver suburb	
senderpostcode	String(Required)	Sender Postcode	
sendersuburb	String(Required)	Sender suburb	
<a href="#">storehouseid</a>	Long(The type of client collect is Required)	The warehouse of client collect	

<code>deliverytype</code>	Integer ( Not Required )	Client collect or not: 0: dispatch, 1: client collect, Default to dispatch	
<code>boxdetails</code>	[ <code>boxdetail</code> ]	Box details	

#### 6.4 Boxdetail Field

Field Name	Field Type	Description	Example
<code>weight</code>	double	Box weight	
<code>estimatelength</code>	int	Box length	
<code>estimatewidth</code>	int	Box Width	
<code>estimateheight</code>	int	Box height	

#### 6.5 Estimated Freight Example

```
private static void testestimatecost() {
```

```
Map<String,Object> data = new HashMap<>();
data.put("receivesuburb", "SOSHANGUVE");
data.put("receivepostcode", "0152");
```

```
List<Map<String,Object>> detaillist = new ArrayList<>();
Map<String,Object> detail = new HashMap<>();
detail.put("weight",3.11);
detail.put("estimateheight",5);
detail.put("estimatelength",40);
detail.put("estimatewidth",30);
detaillist.add(detail);
```

```
data.put("boxdetails", detaillist);
```

```
data.put("senderpostcode", "1619");
data.put("sendersuburb", "Spartan");
```

```
Map<String,Object> paramscontent = new HashMap<>();
for (Map.Entry<String, Object> entry : data.entrySet()) {
Object value = entry.getValue();
if("boxdetails".equals(entry.getKey())) {
paramscontent.put(entry.getKey(),JsonUtils.toJson(value));
}else {
data.put(entry.getKey(),value);
paramscontent.put(entry.getKey(),String.valueOf(value));
}
}
```

```

}
System.out.println(JsonUtils.toJson(data));
String appid = "you appid";
String primarykey = "you primarykey";

paramscontent.put("appid", appid);
String content = SignUtils.getSignContent(paramscontent);

System.out.println("content:"+content);

String sign = SignUtils.getSign(content, primarykey,Const.ENCODE_TYPE);
System.out.println("sign:"+sign);

Map<String,Object> header = new HashMap<String, Object>();
header.put("sign", sign);
header.put("appid",appid);
String result = HttpUtil.doPost4Json4Http("url", JsonUtils.toJson(data), header);

System.out.println(result);
}

```

#### 6.5 Request successful response

```

{
  "status":"00000",
  "message":"success",
  "data":{
    "additionalfee":"0.00",
    "vatcost":"0.00",
    "cost":"24.00",
    "subtotal":"24.00",
    "freight":"24.00",
    "weight":3.11
  }
}

```

## 7. Cancel Order

### 7.1 URL

<http://customer.buffaloex.co.za/express/cancelorderno>

## 7.2 Method: get/post

## 7.3 Field

Field Name	Field Type	Field Description	Example
number	String	Waybill no.,or third-party waybill no.	number=123456

## 7.4 Response result

```
{  
  "status": "00000", //status  
  "message": "Success", //status description  
  "data": {}  
}
```